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See Page 53 October, 1950, Reader's Digest for an interesting story about **Titania**.

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DESERT CALENDAR

- Dec. 1-2 — Arizona State Education Association convention, Phoenix.
- Dec. 1-2 — Arizona Association of Realtors convention, Phoenix.
- Dec. 2—First Gem and Mineral show sponsored by Brawley, California, Gem and Mineral society. Brawley Union high school.
- Dec. 3—Lecture—with moving pictures—on Navajo Life and Ceremony, Miss Cabot Wheelwright, Southwest Museum, Los Angeles, California.
- Dec. 3—Dons Club trek to Black Canyon, Phoenix, Arizona.
- Dec. 3—Yuma Bandoleros will sponsor trip to the Tinajas Altas on the Devil's Highway. Starting time for tour 9:00 a.m. from Chamber of Commerce building, Yuma, Arizona.
- Dec. 10—Palm Springs National Dog show, Palm Springs, California.
- Dec. 10—Dons Club trek to St. John's mission, Phoenix.
- Dec. 10—Illustrated account of shooting rapids of the San Juan and Colorado rivers with the late Norman Nevills, L. S. Peterman, Southwest Museum, Los Angeles, California.
- Dec. 12-13—National Wool Marketing association convention, Phoenix, Arizona.
- Dec. 16-17 — Opening of Arizona Snow Bowl, Flagstaff, Arizona.
- Dec. 17—Dons Club trek to Fort McDowell, Phoenix.
- Dec. 24—Community Western Christmas party, Wickenburg, Arizona.
- Dec. 24—La Posada, Mexican Christmas celebration at Armory park, Tucson, Arizona.
- Dec. 24 — Ceremonial dances after midnight Mass in mission churches at San Felipe, Laguna, Isleta and other Indian pueblos in New Mexico.
- Dec. 25—Ceremonial dance, usually the Deer dance or Los Matachines, Taos Indian pueblo, New Mexico.
- Dec. 26—Turtle dance at San Juan Indian pueblo, New Mexico.
- Dec. 30-31 and Jan. 1—Sierra Club, Southern California chapter, will explore 1000 Palms Canyon and Hell Hole Canyon in Borrego desert. Camp will be in Collins Canyon.
- Dec. 30-Jan. 1—Desert Peaks section of Sierra Club will climb to summit of rugged Kofa Range, just across Colorado River in Arizona. Also explore Kofa Palm Canyon. Dry camp.
- Dec. 31 — Rodeo, Rancho de los Caballeros, Wickenburg, Arizona.
- Dec. 31—Desert Sun Ranchers' Rodeo, Rancho de los Caballeros, Wickenburg, Arizona.



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Photograph by Hubert A. Lowman

THE OLD PROSPECTOR

By KAY PETTYGROVE
Orange, California

A hill of sand, a painted rock,
A breeze to pass me by,
A mesa and the mountain haze,
An eagle in the sky.

The hard worn trail beneath my feet,
A burro at my side,
The lizards that will whisk away,
To find a place to hide.

The desert songs I hear at night,
The old owl's mournful call,
The starlit heavens seem so large,
And I down here so small.

I love this land, the land I've trod,
Until I'm old and lame,
And though I've never found much gold,
I'm happy just the same.

GRAND CANYON

By ALWILDA S. DRAPER
Glendale, California

Nature was angry in fashioning thee,
Frowning dark in thy majesty
Flung across the trackless void,
Thy awesome beauty unalloyed,
Spurning wisdom of all the gods,

Defying nature's every mood,
Flowed the mighty Colorado,
Cleft thy heart with maddening power,
Thy peaks like iron helmets crowned,
And chasms narrow, sullen frown.
Flood crests of thy troubled waters
Fight their way through old nevadas,
Thy strength and power, born to bless
Earth's teeming millions in distress.
Thy angry waters rushing through
Man's conquering hand, their will subdue
Thy towering peaks and chasms dark
And mighty river's pulsing heart,
Thy majesty, O Grand Canyon!

ENCHANTMENT

By SIBYL J. LAKE
Dumas, Texas

Silence deep and calm and soothing
Cloaks the wondrous desert night.
Stars, that glittering, seem to tinkle,
Casting iridescent light.

'Gainst the cliff, a moon-beam glancing
Shatters like a crystal spar.
Yet the silence is unbroken.
Naught can ere that stillness mar

Coyotes wailing in the distance
Fade and blend as though a thought.
All the magic round about us
Whispers—See what God hath wrought.

To the Saguaro

By ROBERT J. RICHARDSON
Santa Cruz, California

Stern sentry with a gallant heart,
A match for all your foes,
Unmoved by Summer's flaming dart,
You keep your stoic pose.

But when young April, gayly dressed,
Spreads beauty all about,
You wear a flower for a crest,
Conquistador of drought!

SELDOM-SEEN-SLIM

By JAMES GRATTAN
Pasadena, California

His shirt is black with age and dirt;
His hat is torn and tattered;
The trousers he wears are frayed with the
years—
And his shoes are scuffed and battered.

He is Seldom-Seen-Slim from over the rim,
Of the simmering Panamint Valley.
Happy is he with his burros three—
Nan and Mamie and Sally.

Seldom-Seen-Slim is withered and thin,
Forty years he has hunted for gold,
Scorning the tastes of city men,
He is cast from a special mold.

Two score years now notch his trail,
Since first he came this way
But his step is spry, for under the sky,
He wins a princely pay.

I envy Slim his carefree life,
As he journeys o'er Panamint Valley.
A mariner is he on a desert sea,
With Nan and Mamie and Sally.

A DESERT FANCY

By EMILY CAREY ALLEMAN
Santa Ana, California

OH! the blustery whirlwinds
On the desert's plateaus,
Are truant boys
With bare brown toes;
Who kick up their heels
And scuff the dust—
Ever growing more robust.

And the little whirlwinds
Are maidens gay!
Who in their dances
Bend and sway;
Who whirl and twirl,
Then roundabout—
Twisting and turning,
They bow themselves out.

Forward

By TANYA SOUTH

With purpose let us march! The heat
Of sun—the chill of storms that beat
About us, shall not hold us back!
Nor shall the lack
Of strength deter by night or day.
For God is all the Light and Way.

Go forward, glad that you can go!—
Your heart with Truth and Love
aglow.
Right Purpose is the highest role
For any soul.



On the right is Merrick Butte, named in memory of one of the two prospectors killed by the Indians while they were searching for the Lost Navajo silver mine. On the left are the well known Mitten Buttes. Hands to fit these monoliths would have to measure 800 feet from wrist to fingertip.

Navajo Gods Guard the Silver of Pish-la-ki

By RANDALL HENDERSON

Photographs by Josef Muench

ONLY TWO white men ever found the fabulously rich silver mine of Pish-la-ki, hidden somewhere deep in the Navajo country—and both of them were killed by the Indians.

The story of Pish-la-ki goes back nearly 100 years. Traders on the fringe of the Navajo and Ute country reported that the Navajo were bringing in silver bracelets and rings made from native silver so rich it could be worked as it came from the ground.

Rumors of this mysterious silver mine reached Jack Merrick, a prospector working in the mines in Colorado. When he had acquired a grubstake, he outfitted for a trip to search

When a big-hearted ex-cowboy and a superstitious Indian team up to go into the mining business most anything can happen. And it did happen in Monument Valley when Harry Goulding grubstaked his old friend Hosteen Yazzi. Here is the story of a lost mine—and a sequel that is one of the strangest stories in western mining lore.

for the mine. He knew the Navajos were hostile, and carefully avoided them. Months later he came into Durango, Colorado, with silver ore speci-

mens which assayed \$800 to the ton.

He met a 21-year-old youth named Mitchell and invited him to go along on a return trip to bring out as much of the ore as they could carry on two pack animals. Mitchell, who had recently come west to seek his fortune, gladly joined Merrick in the venture.

This was in 1880. Several weeks later word reached the Rico mines through the Indian underground that the two men had been killed. A well-armed party immediately went into Monument Valley to verify the report if possible, and bring out the bodies if they could be found.

They went direct to the hogan of Hoskininni, aged Navajo chief, who had escaped Col. Kit Carson's roundup of Navajos at Canyon de Chelly in



Where the Arizona state line crosses Monument Valley. Just to the left of the signboard is Mitchell Butte named for Merrick's companion in the tragedy of the lost silver mine. Beyond are some of the mesas that surround Monument Valley.

1863, and was now the recognized leader of the northern reservation Indians.

Hoskininni knew about the murder of Merrick and Mitchell, but denied that the Navajo Indians had any part in the crime. The Utes had killed the men, he asserted, and he knew the leader of the band which had done the killing. He named a Ute known as No Neck.

Hoskininni led the party to the scene of the murder. Only the bones of the two men were found. Coyotes and vultures had been at work. The horses and camp outfits were missing, but heavy bags of high-grade silver ore were found at the camp. According to the story told by the Navajo chief, the Utes had attacked the men in the night. Mitchell was killed instantly, but Merrick was only wounded and escaped in the darkness. When daylight came the Indians followed his tracks and found him three miles away. There he was murdered.

Hoskininni died in 1912, but the story told by the old chief was repeated in 1939 by Hoskininni-begay, his son, in an interview with Charles Kelly of Torrey, Utah.

According to the son, who was 81 at the time Kelly visited him in Monument Valley, the silver mine known

as Pish-la-ki did exist, but only seven Navajos had known its location and the elder Hoskininni was the last of these. One of the Navajos who knew where the mine was located, had tried on his death bed to pass the information along to his son, but the son had never been able to find it.

The bones of Merrick and Mitchell were buried near the bases of the buttes where they were killed, and the buttes named in their honor. The exact location of the graves is unknown today, but the buttes bearing their names are seen by all who visit Monument Valley.

The story of Pish-la-ki and the tragedy of the two prospectors has become a legend in the Indian country. There was evidence to confirm the fact that Merrick actually had found a rich deposit of silver. Jack Wade, father of Mrs. John Wetherill, and Martin Rush saw Merrick's ore samples in Durango in 1880 as they traveled west with their families.

Mining men say that the likelihood of finding silver ore in the sedimentary sandstone of the Monument Valley is remote. Until the recent discoveries of uranium ores in that area, mineral deposits of any value were unknown, and because of the geological formations, prospectors seldom took the trouble

to go into the region, even after the Navajos had settled their feud with the United States government.

But the murder of Merrick and Mitchell is a matter of historical record, and Hoskininni-begay asserted until his death that the mine did exist because he had seen silver from it. He had never tried to locate it because most of the Navajos have reverence for the earth that gives them life, and the mining and removal of any part of it was a violation of their religious creed.

• • •

And now we come to a rather amazing sequel to the story of Pish-la-ki—a story told by Harry Goulding of the Monument Valley trading post.

Harry has lived much of his mature life among the Navajo, and perhaps knows them better than any other living person of Anglo-American blood. The Navajos love and respect him for the unselfish manner in which he has dealt with them for a generation.

Harry Goulding believes the story of Pish-la-ki—that somewhere in northern Arizona or southern Utah the silver mine once known only to seven Navajos—and to Merrick and Mitchell before their death—still remains hidden in a remote and inaccessible sector.

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A Navajo whom we will refer to as Hosteen Yazzi, although that is not his name, on one of his occasional visits to the trading post told Harry he knew the location of the silver mine, but he was afraid to go near it.

Goulding knew his Navajos too well to press the matter, but in subsequent conversations over a period of years, he learned enough from Hosteen Yazzi to convince himself that the Indian was telling the truth—that he knew the way to the rich deposit.

The time came when Yazzi's large family was suffering from lack of food. It was then that Harry suggested to the old man that he should bring out some of the silver so that his wife and children and his relatives would not go hungry. Hosteen Yazzi replied that he would not do that—the curse of the gods would be upon him.

Goulding did not insist, but as the plight of the family grew worse he brought up the subject again. "Do not tell me the location of Pish-la-ki. I do not want any of the silver for myself," he said. "But I will furnish pack animals and food for you to go in alone and bring out enough silver to buy food for your family. A good father will not see his children without bread. The gods will not be angry with a man who takes only what he needs to feed his family."

Hosteen Yazzi at first hesitated, but he knew Goulding was his friend and was speaking to him words of wisdom. Finally he agreed to do as the trader suggested.

It would require several pack burros to bring out the ore, but these were obtained from the various Indian camps in Monument Valley. The only pack saddles Harry could obtain were for horses and mules. For three days he and Yazzi cut and re-punched the leather and fittings to adapt the saddles to the smaller animals.

Then Goulding loaded the train with an abundance of food from the trading post—enough to supply Hosteen Yazzi for three weeks. It was a well-equipped pack train which left the trading post early one fall morning.

Several days elapsed. The weather turned cold and rainy and Harry hoped his Indian friend had found shelter to keep him dry and warm.

Then late in the afternoon of the sixth day, Hosteen Yazzi staggered into the trading post sick and frightened. He had neither pack animals nor food. His body was racked with coughing.

Goulding speaks fluent Navajo, and from the Indian he learned the story. The gods were displeased. They did not want the silver of Pish-la-ki disturbed. They had sent cold wind



Harry Goulding. Owner and operator of Gouldings' Trading Post, Harry is a typical westerner. He knows Monument Valley better than any other white man, probably, and his post is said to be the farthest point from a railroad in the United States (190 miles). Arizona and Utah, Monument Valley.

until his feet and hands had no feeling. They had drenched him with water. The arroyos were running full and he could not cross.

Where were the pack animals? When Harry asked him this question he pointed with his lips in the direction from which he had come. Maybe three-four days, he could not be sure.

Mike (Mrs. Goulding) and Harry put the old man to bed, and as soon as the weather would permit Harry went to find the pack animals and outfit. After several days he rounded them up and returned the burros to

their owners and salvaged what he could of the outfit.

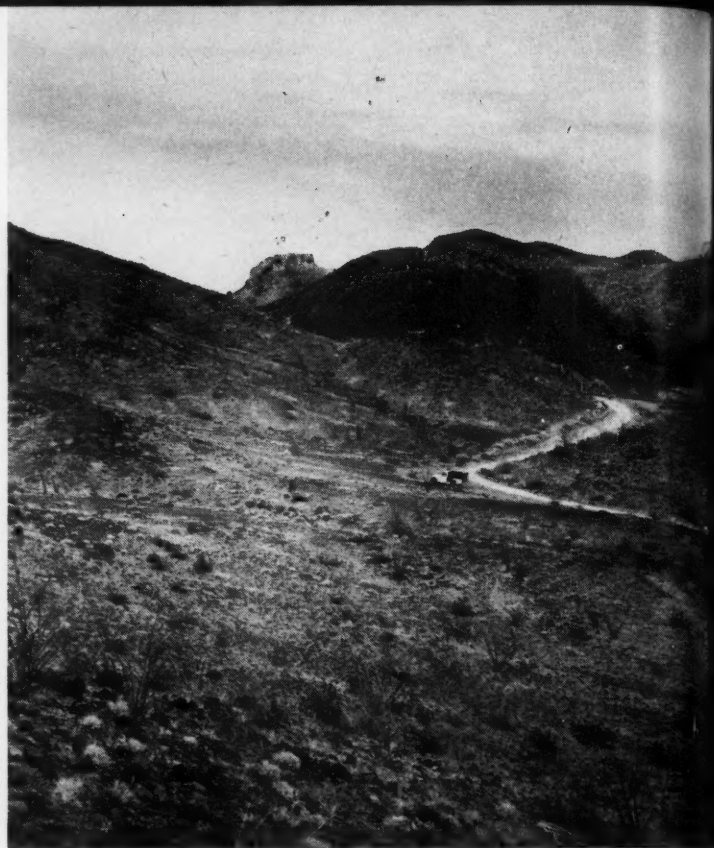
Hosteen Yazzi did not recover quickly. His cough continued and he was frightened. He had incurred the displeasure of the gods, and he was very unhappy.

But Harry knew the answer. He called in the medicine men and held a sing for his friend. The sing cost him more than a hundred dollars.

Harry still believes that mine is somewhere out there among the canyons—but he has decided to let the Navajo gods keep their secret.



Ed Rochester, desert frontiersman and now unofficial mayor of Picacho, points out landmarks on the township plat of old Picacho, subdivided in 1896 by Joseph Mendivil, on whose property most of the town was built.



Chalcedony rose field on the Picacho road. The huge rock formation shaped like a sheep's head, top of mountain left, is a landmark for the field. The shrine of Princess E-Vee-Taw-Ash lies in the pass on the other side of this mountain.

Gold and Roses on Garces' Trail

By HAROLD WEIGHT

Photographs by the author

Map by Norton Allen

ED ROCHESTER made one of the most unusual gold finds in a life-time of prospecting early this summer along an old trail between the Cargo Muchacho Mountains in California and the Colorado River. The gold itself wasn't remarkable—and there wasn't much of it. But the question is, how did it arrive at the spot where Ed found it?

Ed has been living at the fishing camp-ghost town of Picacho—which lies about 25 miles north of Yuma on the California side of the river—since 1940, and he had passed that particular place often without seeing a trace of gold. This day it had been raining heavily and his prospector's eye sighted a small nugget which apparently had been uncovered by the run-off. The ground was still wet so Ed marked the spot, pocketed his find

and returned home. When the sand had dried enough to work he came back with a dry-washer. From the immediate area of his first discovery he recovered two ounces of gold, mostly in small nuggets. But that was all. Tests on all sides showed not the slightest trace of additional values.

Experienced through long years of placering Colorado River gravels, Ed had been certain from the first that the gold had not been concentrated in that spot by any natural means. In fact, he was sure it had not come from any of the river placers he knew. Most placer gold carries its own identification papers. That is, specimens from different areas vary in fineness, color, size, general appearance and in the extent to which each has been water-worn.

When Ed told Lucile and me about

The old gold camp at Picacho on the Colorado River yielded millions in nuggets to the prospectors of 75 years ago, but the placer gravel has long since been worked out. However, there is still wealth around Picacho for those who go to the desert today in quest of semi-precious stones—and here is the report of a field trip made into this area by Harold and Lucile Weight.

his find and showed us the little vial of nuggets and coarse gold, he was of the opinion the yellow metal had come from the Cargo Muchachos. Some miner, he reasoned, had dropped his poke from pocket or saddlebag as he rode along the trail. Then, possibly, the hoofs of his animal or of one following had driven the bag out of sight in the deep dust.

That is a reasonable explanation. But how long ago had the little bag fallen beside that old trail? How many years—or generations—passed before it rotted away and released the nuggets, and the slow placering of the rain brought the gold to the surface again? Perhaps it was lost only 40-odd years ago, when the Cargo Muchachos were booming. But it might as easily have been dropped in the 1880s—or the 1850s. There is even the possibility that those little gold stones first were winnowed from the desert by Spanish hands, long before California was a state.

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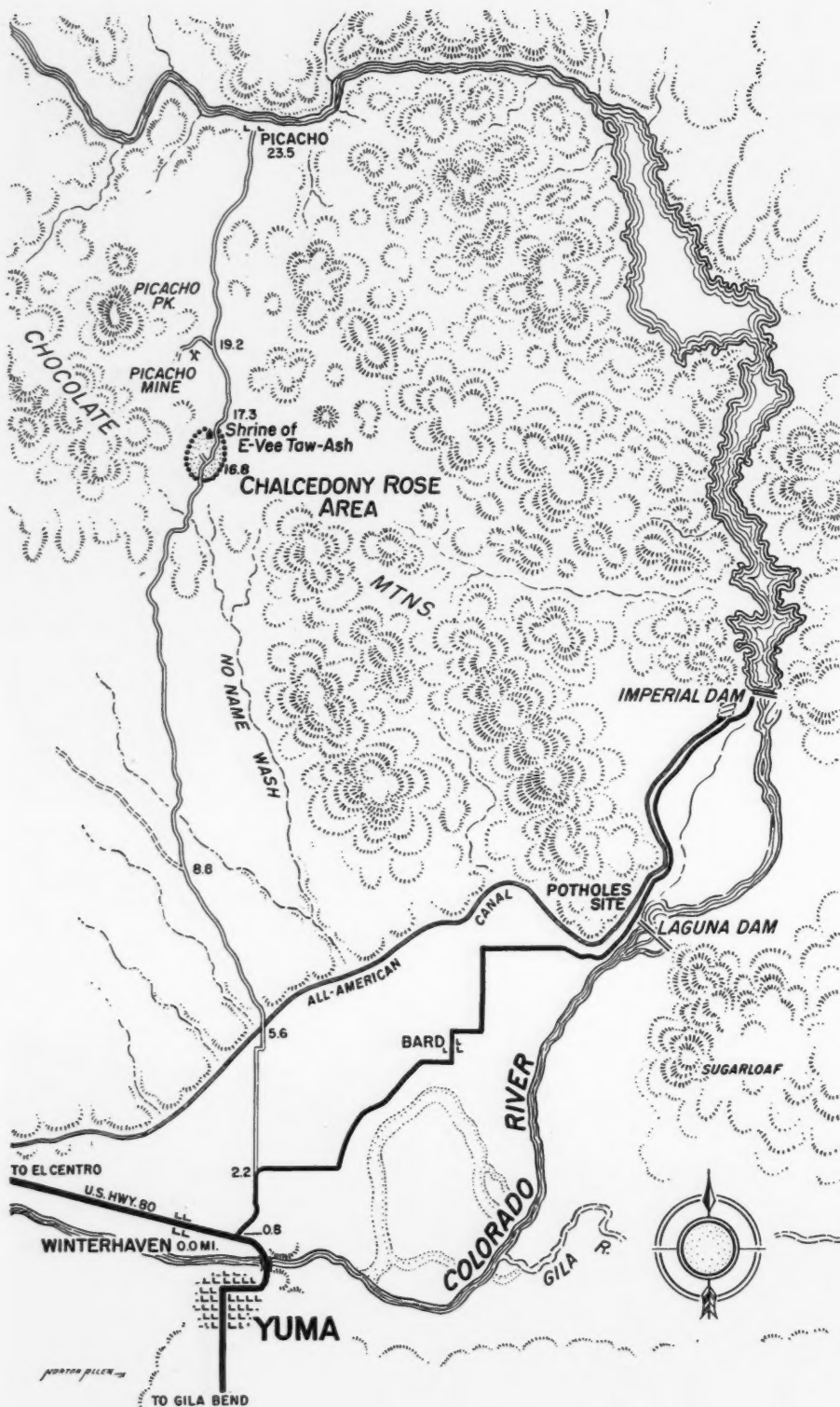
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Smoketrees and ironwoods line the broad sandy wash which leads north from Picacho Peak past Picacho mine to the ghost town of Picacho and the Colorado River. The peak, background, has served as a landmark for centuries and is a challenging one for mountain climbers. (Desert Magazine, April 1948.)



For I am certain that somewhere in this region lies the site of the first discovery of gold within the present boundaries of California—that it was mined in the Cargo Muchacho-Picacho-Potholes area nearly three-quarters of a century before Marshall found nuggets in the tail-race of Sutter's mill and long before Don Francisco Lopez found the precious metal clinging to the roots of the wild onions in Southern California's Placeritas Canyon in 1842. J. Ross Browne and William P.

Blake, early authorities on mineral matters, believed that gold was known along the Colorado river in the 1770s. Paul C. Henshaw, in the *California Journal of Mines and Geology* for April, 1942, writes that mining first was carried on in the Cargo Muchachos and at Laguna Potholes in 1780-81 with the founding of Spanish settlements on the Colorado.

Officials in Spanish Colonial times kept careful records of almost every happening under their jurisdiction.

But the mission-pueblos on the Colorado were destroyed by the Indians less than a year after they were established and it is possible that reports of activities there were lost at that time. If so, no documentary evidence of the discovery of gold there could exist today. But present-day members of the Quechan—or Yuma—tribe have a legend that their ancestors were forced to dig gold "for the padres" until they revolted, killed the Spaniards and threw the gold back into the river.

Circumstantial evidence supports the legend. As Fray Salmerón wrote in an official report in 1629, Spaniards of the Southwestern frontier "out of greed for silver and gold would enter hell itself to get them."

On February 16, 1775, Father Francisco Garcés, adventurous Franciscan missionary-explorer who was camped for the night about 17 miles north and west of present Yuma, wrote in his diary: "The old interpreter whom I have brought is versed in mines, and told me this land indicated much gold, for there was much tepustete de color."

This tepustete—or tepostete—was the specular iron ore which had been found in the gold placers of Sonora, considered by Mexican miners of the period as a sure sign of the presence of gold. So possibly the interpreter made a lucky guess when he said this was gold country. But it was a guess which would have been remembered five years later when Garcés and three other missionaries with soldiers and settlers came to set up two mission-pueblos on the river. And when we know that one of the missions—San Pedro y San Pablo de Bicuñer—was actually built upon the rich gold gravels of the Potholes, it is difficult to believe the colonists were ignorant of the values underfoot. And if the colonists were forcing the Indians to work in the placers, it would help explain the violence of the revolt of July 17, 1781, when Garcés and his fellow missionaries and many of the soldiers and colonists were killed and the remaining settlers made captive.

Ed Rochester is an expert on the old Indian trails in this part of the desert. At one time or another, he has traced most of them out and has gathered all the information he could about them from his Quechan friends. The main trail up the river, Ed told us, followed up No Name Wash, went just north of Picacho Peak, crossed over to Bear Wash and then entered Indian Pass. This route, providing we allow for a little compass error, seems to meet all requirements of the course Garcés followed, and permits him to pass "near the Peñon de la Campaña (Picacho

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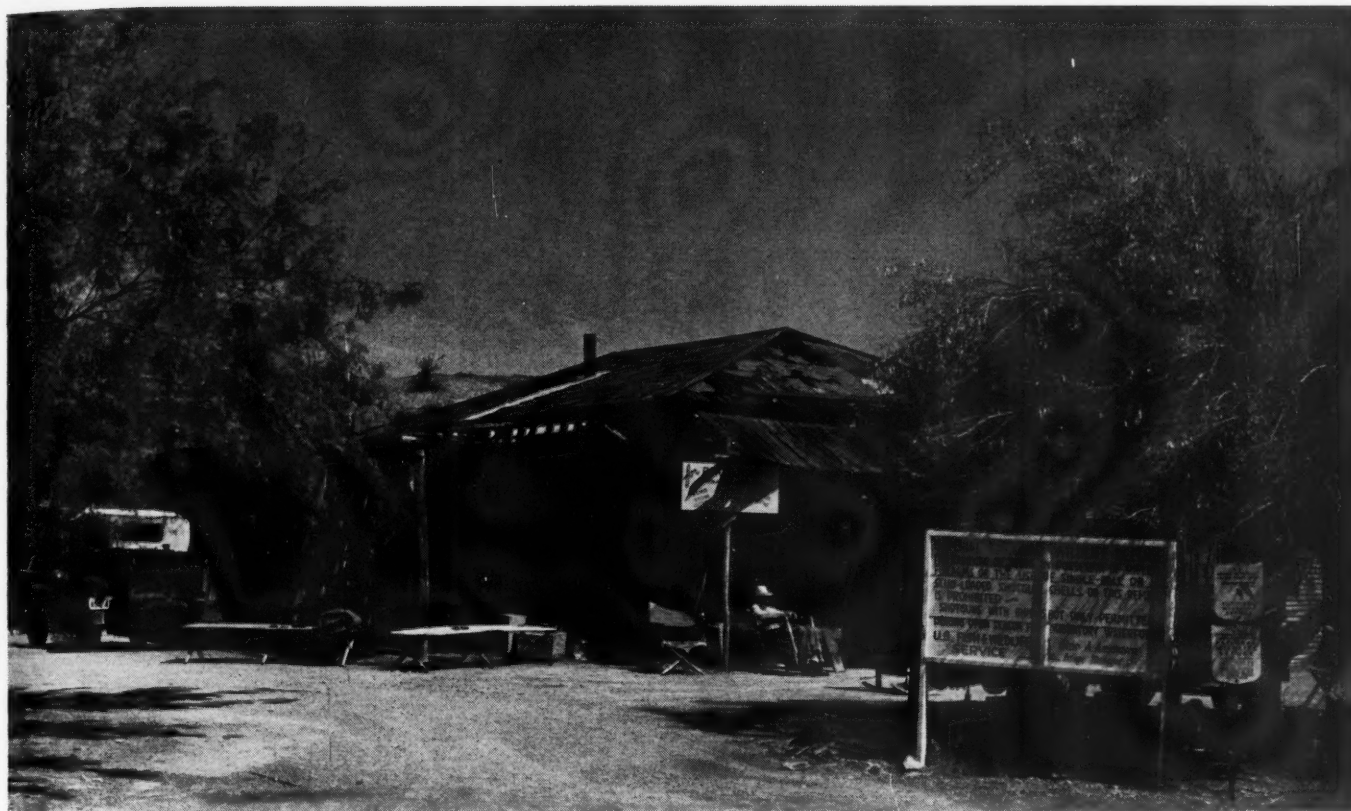
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Ed Rochester and Earl Kerr make their home in this 50-year-old building, once the Tom Riley store and Picacho's last postoffice. Many birds gather here in Imperial National Wildlife refuge and even desert mice and kangaroo rats and cottontails seem to feel more secure.

This is Tortilla Flat, remnant of the "aristocratic" residential district of old Picacho, once a Colorado River gold camp where 2500 people lived. The backed up Colorado River has encroached upon the town since Imperial and Laguna dams were built and what were once the main streets are now under water. Colorado River, right background.



Peak) which from here has a diverse aspect."

If that is the trail Garcés followed, his camp the night he wrote about the gold should have been located not far beyond the pass that leads to Picacho. So far we have found neither gold nor *tepustete de color* in the shrine area, but we did locate a field of green-fluorescing chalcedony not far away.

To reach this collecting field, rockhounds should zero their speedometers in the center of Winterhaven and follow Highway 80 to .8 mile east of Winterhaven and .6 mile west of the Colorado River bridge, where the surfaced road to Laguna and Imperial dams branches to the northeast. Following this road through the railroad underpass, we are upon Indian land, the reservation of the Yuma people. Here are the descendants of the Indians who have inhabited the river valleys at the junction of the Colorado and the Gila since the first Spaniards visited them in the 16th century.

They wear white man's clothing now, and you will see jalopies and mechanical farming equipment in many yards. But some of their homes are daubed mud and wattle and adobe with brush roofs are almost as primitive as the jacals of their ancestors. Among themselves they still speak the Quechan language, and they remain aloof from the casual white visitor.

At 2.2 miles from Winterhaven, where the paved route to the dams curves sharply east, the traveler to Picacho must continue straight ahead on a dirt road. This road climbs the bank of the All-American canal at 5.4 miles. For Picacho, turn right on the canal bank road, cross a concrete bridge and then, at 5.6 miles, turn left onto a bridge over the canal itself. From the north bank, the road enters a big wash where it divides at 5.7 miles. We keep to the right and soon are climbing an arroyo cut into the old Colorado River terraces.

These river rocks, identified by their water-worn shapes, continue for at least two miles along the Picacho road, and we seldom pass through them without stopping for a rock hunt. The pebbles are similar to those found in the Sidewinder Hills (*Desert Magazine*, October 1948) and are composed of material brought by the river from Utah, Arizona, Nevada and the California deserts. We have found all types of jasper and agate—some cutting into beautiful stones—and now and again pieces of petrified wood and bone and other fossilized material in this rock-midden of the old river.

A broad road which is a reminder of the days of World War II, when thousands of men trained in this desert, branches left from the Picacho

road 8.8 miles from Winterhaven. It crosses the valley to the Cargo Mu-chachos, and was still passable to jeeps the last time we took it. But the average car will sand down in crossing the first big wash three miles from the turnoff.

We took the right fork at this division. The road wanders over ridges and down into washes, offering striking views of the desert country. About 15 miles from Winterhaven it cuts around the edge of a rocky hill. Once this was extremely bumpy going but on our most recent trip we found the dirt had been filled into the chuck-holes—a notable improvement.

Rockhounds who prefer to do their own exploring can find interesting material many places in the Picacho country. But for the chalcedony field we parked 16.8 miles from Winterhaven in a little turnout to the left of the road. An odd rock formation which

Eva Wilson comes up with another rose, found among the colorful rhyolite fragments which litter the ground near Princess pass. The chalcedony roses here are usually small and delicate in form, and are fluorescent.



looks like a tremendous sheep head, on the mountain-top here, makes a natural marker for the field which is located just below the point where the road curves around into Princess E-Vee-Taw-Ash's pass.

Others had been collecting before us, and we decided that to find good specimens or material in quantity, we would have to hike. Lucile discovered that there were many little chalcedony roses on the rather steep slope down and across the road, and as far as I walked to the south and west I continued to find them. What first attracted our attention was the extreme delicacy of the specimens we found. Instead of the opaque waxiness found in many chalcedony rose fields, these often were translucent and edged with dainty flounces and ruffles.

But the field was further distinguished by the fact that we found leaf patterns as well as roses. Some were obscurely formed, but we found one exquisite miniature of a maple leaf. And these leaves appropriately fluoresce green. But so do the roses, for most of the material here has good fluorescence.

Our companion on this trip, Eva Wilson, El Centro botany-hobbyist, lost interest in the stone roses the moment she discovered rock hibiscus blooming in a little wash. This small white mallow with raspberry center is one of the Colorado desert's most charming flowers. And even though this was February, it was not blooming alone. Ocotillo flamed on the dark mesas around us; tall shrubby desert lavender was fragrantly inviting wild bees, and the barrel and beavertail cacti were about to show their yellow and magenta colors.

Half a mile beyond the chalcedony parking place, in the pass to Picacho Valley, a pile of rocks on the left of the road marks the shrine of Quechan Princess E-Vee-Taw-Ash, who is supposed to have been metamorphosed into the mountain west of the shrine. Both shrine and a little register were set up by Ed Rochester, part of his efforts to preserve some of the legends of the Quechans. For years he has been collecting the history and folklore of this people, and many of his Indian friends—knowing the sincerity of his interest—have told him things no other white man knows. He sits in on meetings of the tribal council, is active in promoting the Quechan Athletic society and has spent a great deal of time and effort in an attempt to help the Indians.

Ed once told us he lived "at the end of the roughest road in California." That's a tall claim but there have been times after heavy rains when the section of road through Princess Pass came close to living up to it. Ed, how-

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Ed Rochester believes that here at Viejo bar in Picacho wash the first gold of the district was placered an unknown number of years ago. The piles of earth show how the bar has been worked and reworked by gold hunters. The bar is about two miles northeast of the glory hole at Picacho mine.

ever, qualified his statement by saying it is "a good desert road—if you take it slow." Last time we saw him he told us the road had been worked on all the way through and was easily negotiable. Even in its rough days, fishermen hauled trailers to the river along it.

Those who continue on down to the old Picacho camp are rewarded with what I believe to be one of the most beautiful trips on the Colorado desert. The view from the pass at sunset — across ridges and buttes and canyons of vivid volcanic rock—is very nearly sublime. The road winds down through greens, reds, violets and blues with ever-spectacular Picacho peak towering on the west. It passes the left turnoff to Picacho mine 19.2 miles from Winterhaven then enters Picacho Wash which was filled with big smoke trees, palo verdes and ironwoods as it widened. When any one of these trees—but especially the smoke tree—is in bloom the trip through Picacho wash will never be forgotten. Even without

blooms, the rock splotches of black, green, red, purple and orange make it a colorful ride.

Ed Rochester and Earl Kerr, his partner, live at Tortilla Flat, 23.5 miles from Winterhaven. Tortilla Flat, Ed tells us, was the aristocratic residential section of town in the days when Picacho was booming. And while the mines no longer are operating it's still a great place to live, Ed thinks. It has the best air in the world, he assures us—112 per cent pure.

Ed and Earl occupy the Tom Riley store, built in 1900. It was a store until after 1922, and the town's last postoffice. The main part of town lay to the east of Tortilla Flat, but if you should want to travel its streets today, you must do so in a boat. It has been submerged beneath the backed up waters of Imperial dam. There was a time when it was the great gold camp of the Colorado River (*Desert Magazine*, March 1939). From the time the first placering started in the 'six-

ties, Picacho increased in mining importance until the peak year of 1904, when the town had 2500 population and 700 men worked in the mines.

Since Ed took up residence in Picacho in 1940, he and Earl have become active rockhounds. Prospecting from their boats along the Colorado river as well as using footpower, they have assembled varied and unusual collections. Ed is a member of the Imperial Valley Gem and Mineral society of El Centro, and this year took time out to attend both the California state convention of mineral groups at Trona and the Rocky Mountain Federation meeting at El Paso, Texas.

While Ed returned to Picacho comparatively recently, his whole lifetime has been spent prospecting, mining and trapping in the desert wilderness. He is one of the few remaining real desert frontiersmen, and I suspect that he would have felt a little more at home in the days of Kit Carson than he has in the 20th century. He was born in a covered wagon near La Paz and

Ehrenberg and was working a dry-washer when seven or eight years old.

"When did I start mining?" he laughed when we asked him. "You might as well ask when I started walking. It came just as naturally." Since he was old enough to follow the booms, he has been in every mining camp excitement. He trapped the Colorado for years from Yuma to Black Canyon, poling and rowing a boat up and down the river before the great dams cut it off and before there were outboard motors. He rode horseback down the trailless river bank from Ehrenberg to Yuma nearly 40 years ago. He helped dig Beal's well in the Chocolates in 1920. He ran the river ferry at Cibola valley in the early thirties.

Most of his life has been a protest against the standardization which civilization has brought to many of our lives. Whether he gained more than he lost, only he can know. But it is interesting to consider that today he is not far from seeing his way of life vindicated in part. It is no longer reprehensible to be out of step with mechanized civilization. As he travels the once-lonely desert trails he sees more and more city folk seeking something they have not been able to find in their big-town lives.

I wish I knew half the things Ed does about the desert country, its people, its wildlife, its rocks, its trails, its water supplies. ("You need 'tank sense' to find water in the desert, except in summer. Then you can watch the white-winged doves. They'll take you right to the tanks.") But the only way you can learn such things is by living them, as he has.

He knows the legends of his land—Indian and white. Stories of fantastic god-mountains and of lost gold mines. Particularly lost gold mines, for I believe they are more numerous in this region than anywhere else. Ed has hunted for some of them and still is on the trail of a likely few. But the ones I particularly enjoy are those dealing with this land's ancient past.

Take the tale of the Lost Badger Hole Bullion. Ed heard it from a Quechan Indian who died years ago. When the mission-pueblos were still on the Colorado a mule train loaded with melted out gold bullion from the Cargo Muchachos came down the old Indian trail, north of Mission San Pedro. At the narrows, not far from E-Vee-Taw-Ash shrine, the Indians ambushed and massacred the Spaniards and threw the gold into a near-by badger hole and covered it over. Yes, it must have been a big badger hole to accommodate a mule-train of gold, but Picacho badgers are a vigorous lot.

Even more intriguing is the frag-

PICACHO ROSES ROAD LOG

- 00.0 Center of Winterhaven, continue east on Highway 80 to
- 00.8 Turn left (NE) through railroad underpass on surfaced Laguna and Imperial dams road. (Turnoff is .6 mile west of Colorado river bridge.)
- 02.2 Paving (Laguna dam road) swings east. To Picacho, continue north on dirt road.
- 05.4 Climb bank of All-American canal. Turn right (NE) on canal bank road.
- 05.6 Turn left (N) to cross bridge over canal, follow dirt road into big wash.
- 05.7 Road Y. Keep right on Picacho road. (From approximately 6 to 8 miles north of Winterhaven, road passes through river terraces where cutting material may be collected.)
- 08.8 Road Y. Keep right.
- 16.8 Chalcedony rose area. Specimens may be found on either side of road but seem more plentiful to north and west.
- 17.3 Shrine of E-Vee-Taw-Ash and top of pass.
- 19.2 Road Y. Picacho mines left. Keep right.
- 23.5 Tortilla Flat and Colorado river.

mentary legend that long, long ago the Quechans were ruled by a powerful and tyrannical chief. They had much gold in those days, but it proved such a curse to them that at last they revolted, threw the gold away and turned the cruel chief into the mountain now known as Pilot Knob. Is this a confused version of the revolt against the Spaniards in 1781, or do its roots lie infinitely farther back, tying in with the unconfirmed and unconfirmable tale that Aztec warriors once came across Arizona's *Camino del Diablo* for the placer gold of the Colorado River?

It seems a fantastic notion. But on a warm night in old Picacho, while a great yellow moon rides high over the lush river valley, and you sit under a feathery palo verde in the heart of a once-golden land that poured millions into the treasuries of the world, almost any tale seems possible. Even the story of a princess turned mountain. I remembered the first time we had stopped to hunt chalcedony roses. Thunder rolled from E-Vee-Taw-Ash Mountain, lightning flashed and a cold rain drove us back to the car almost as we picked up our first specimens. Was the princess protesting that we were pilfering her stone jewelry?

Ed Rochester might say so. Ed knows that Picacho is a strange land; a land of legends and dreams and beauty as well as heat and harshness and desolation. Ed and the Picacho country seem to understand one another and perhaps that is why he apparently has settled down at last.

Mexican River Pact is Now Effective

Under the terms of the Colorado River Mexican Water treaty signed by American and Mexican commissioners on November 8, 1945, 1,500,000 acre feet of water in the Colorado is allotted to Mexican farmers for use in the delta of the river below the international boundary.

The treaty went into effect in November this year—five years after its signing. The 5-year interval was arranged to give both countries an opportunity to carry out preliminary work necessary for the delivery of water to Mexico under the terms of the compact.

On the American side, Davis dam was built above Needles for the further regulation of the stream, and on the Mexican side Morelos dam has just been completed as a diversion structure to raise the level of the river to an elevation which will irrigate all lands within the delta area.

When the American states of the Colorado river basin signed their historic pact at Santa Fe, New Mexico, in 1922, the agreement was based on the assumption that the average annual flow in the stream was 16,000,000 acre feet. The upper basin states of Wyoming, Colorado, New Mexico and Utah were allotted 7,500,000 acre feet, and the lower basin states of Nevada, Arizona and California were allotted the same amount with an additional 1,000,000 feet to the lower basin if the water was available.

In recent years, however, the Colorado has fallen far short of the 16,000,000 figure. During the year ending September 30 the flow at Lee's Ferry amounted to 11,060,600 acre feet or about 70 percent of what is regarded as normal at that point.

At present, the Upper Basin States are using only about 2,000,000 acre-feet of their 7,500,000 quota. Of this, about 200,000 acre-feet is in the form of trans-mountain diversions. However, elaborate plans call for use of an eventual 3,500,000 feet out of the basin in these diversion projects.

Mexican lands already are using more than the 1,500,000 acre feet allotted to them. This will create no complications as long as water is going to waste in the gulf, but in view of the figures above quoted it is obvious that the time is approaching when all of the areas being served from the Colorado will be called upon to keep within the allotments made to them.

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AZINE



On the trail from Cottonwood Springs to Lost Palms Canyon.

On Desert Trails With Lloyd Smith

By NELL MURBARGER

Photographs by the Author

WHEN Lloyd Mason Smith, director of the Desert Museum at Palm Springs, California invited me to accompany one of the weekly trail trips which he leads into the desert during the winter season, I accepted with some misgivings. I have been on organized Nature hikes before, and generally I found myself in a group of botanists or mineralogists, or both, who had forgotten more than I would ever know about natural history.

But Lloyd—everyone calls him that despite the fact that he holds a doctor's degree—assured me his trips were not like that. "Our hiking parties," he explained, "generally are composed of professional and business people who have come to the desert for its winter

sunshine, and who are eager to learn something about this land which is so different from their home landscapes."

Our trip was scheduled to start at 9:00 o'clock on a Saturday morning in February, but when I arrived at the Museum at 8:30 some of the potential hikers already were there. A young woman in levis, a buckskin jacket and braids, was discussing coyotes with an elderly man in a gray business suit. He was, it seemed, an interior decorator from Boston and this was his first experience in the desert. A couple of active white-haired grandmothers were discussing the previous Saturday's field trip to Thousand Palms Canyon, and the peculiarities of gecko lizards and horned toads were being aired by a bankerish-

Palm Springs is renowned for its luxurious winter resorts—where socialites and movie stars and wealthy industrialists come to lounge in the desert sunshine. But Palm Springs also attracts many studious, eager-minded visitors — both young and old—who would be bored with the inactive pastimes of luxury. For them, Lloyd Mason Smith and the Desert Museum have provided a vigorous program of recreation which involves long hikes along the desert trails and study groups and lectures—the kind of mental exercise which keeps old people young. Here is the story of the man who is the connecting link between Palm Springs and the desert as Nature created it.

looking chap and a bright-eyed youngster. The boy, I learned, was Sean Flynn, son of Movie Star Errol Flynn, and one of the trail group's most loyal followers.

Motorists and foot travelers continued to assemble—the extra seating accommodations available in each vehicle being quickly noted by Miss Agnes Andrews, museum secretary, who makes sure that every potential hiker is afforded a means of transportation. Guest riders, in return, are expected to share the cost of gasoline. Throughout the years in which the Saturday field trips have been a part of the museum program, it has been necessary to turn away only three hikers as result of seating limitations.

As Lloyd's station wagon pulled

away from the museum the assorted vehicles of our caravan fell into line. I noted that nearly two-thirds of the cars bore out-of-state license plates, mainly from the East.

For many of these people this would be their first venture out on the rough winding trails which lead away from the paved highways. Not many of the desert flowers were in blossom, and I wondered if these visitors would see any beauty in the arid terrain.

To our left stretched the long dark ridge of the Little San Bernardino Mountains. To our right were the bare gray slopes of the Indio Hills. Behind us were the purple mists of the canyons in the Santa Rosa Mountains, and the snowy crests of San Jacinto and San Geronio peaks. From the golden russet of the varnished rocks to the olive-green of the creosote covered plain, from the soft blue of the smoke trees in the sandy washes to the indigo of the sky there was color—plenty of it for those of us who knew this desert and loved it. But perhaps the leafless ocotillos and the dry arroyos would not look so good to folks accustomed to sugar pines and meadow brooks. I couldn't have designed a grander desert morning, and yet I wondered . . .

Twenty miles east of Indio, Lloyd signalled a left turn off U. S. Highway 60. Almost immediately we had entered Joshua Tree National Monument and were bumping over the graded road leading toward Pinto Basin and Twentynine Palms. Seven miles on this road, a right turn into a second side road, and another mile brought us to Cottonwood Springs. While the big old cottonwoods still were bare of leaves, the little oasis was made pleasantly green by a handful of wild palms clustered about the spring, and the thorny mesquite bushes which spilled down the wash.

With our cars parked in the shade of the trees, there ensued a general scramble for lunch bags and cameras, canteens and binoculars. Sweaters were taken off, other sweaters put on; and out of temporary chaos there eventually emerged a trail group of 28 assorted adults, three youngsters, two excited terriers and a faultlessly clipped black French poodle.

The poodle, I suspected, was better acquainted with Westchester dog shows than with the spiny hazards of Riverside County. As for the human members of our expedition, I doubted if some of them had walked ten blocks in the past ten months and I was fervently glad that the task of getting them over eight miles of trail and back to their cars was Lloyd's responsibility and not mine.

The trail started climbing immedi-

ately and for the first hundred yards or so, none of us had breath for anything but propelling ourselves up grade. The first time we paused to catch our wind, a woman from Ohio asked Lloyd the name of "that funny, tall cactus."

Lloyd explained that it wasn't a cactus but an ocotillo. He went on to tell a little about the plant and its peculiarities. The New England dentist asked him to point out a smoke tree—he had heard of them but had never seen one.

Contemplating the leafless thorn bush which Lloyd indicated, the Down East Yankee frowned in perplexity.

"But tell me," he said, "what is there about such a plant that one can smoke?"

Everyone laughed. The ice was broken. From that time forward these lawyers and retired building contractors and grandmothers and school kids were shooting questions at Lloyd from every side; questions about the birds, the cactus, the geology, even the tiny paw prints so delicately etched in the loose sand of the trail.

For the most part they were intelligent, thoughtful queries; but whether serious or senseless, Lloyd answered all of them courteously and to the best of his ability. And while few persons have better knowledge than he of the desert's flora and fauna, I noted with satisfaction that he was content to label everything with its common name, leaving the scientific terms to the naturalist fraternity.

Another thing I liked was the complete informality which marked the hike. When I said something about this to Lloyd, he laughed.

"Rules and regulations just make folks uneasy so we try to have as few of them as possible," he explained. "Naturally, we insist upon good desert sportsmanship. We don't drop papers or rubbish along the trail or at our noon camp. We don't throw rocks which might endanger other hikers. We don't pollute springs; we're careful with fire—particularly in the wild palm groves—and we never write names or initials on rocks or tree trunks. Beyond this, 'most anything goes."

"When Sean Flynn first joined our group," Lloyd went on, "he asked me if we had much trouble with children. I told him that most youngsters were very good about observing our few rules. Sean studied for a moment and then said, seriously, 'Well, then, do you have much trouble with adults?'"

"I assured him that not even adults caused us much worry."

In view of this informality and the fact that many persons participating in the all-day trail trips are wholly lacking in desert experience, it seems

especially commendable that during the several years the Museum's trail group has been functioning, none of its participants has suffered an accident more serious than a slightly skinned knee or a misplaced cactus spine.

"I should think you'd hesitate to start on these all-day trips with a group of inexperienced hikers," said the interior decorator from Boston. "What if some of us should give out along the way? How would you get us back to our cars?"

Lloyd laughed. "It's seldom that anyone 'gives out' on the trail," he said. "I guess the average American is just naturally determined to finish what he starts." Occasionally, he explained, he thinks it advisable to warn less robust persons against attempting the more strenuous trips. "But this doesn't mean elderly folks, in general," he was quick to point out. "Two of our best hikers last season were women past 80 years of age!"

Our trail toiled up and dipped down, wound across sand washes, skirted along exposed ridges, and wound through wild gardens of bristling yucas and tall white nolinias. It was nearing noon when we emerged at last on the rim of a deep rocky canyon and looked down upon the feathery green oasis of Lost Palms.

No matter how many wild palm canyons one may have explored, I doubt that the experience of looking for the first time on a new one can ever become commonplace. There is always that quickening of the pulse; that pleasant thrill of discovery. As for the out-of-state visitors in our party—many of whom had never before this day looked on a wild palm in its native habitat—that first breathless glimpse from the rim of the canyon constituted an experience they would remember all their lives.

Any thought of weariness was forgotten as we hurried down the switch-back trail which led us quickly to the bottom of the gorge where jungle-like grass grew tall amid the palms.

Flood debris, banked against the upper side of boulders and fallen palm trunks, gave evidence of lusty freshlets which had torn through here in past seasons, but a dry winter had reduced the stream to a trickle, barely adequate to supply the rock-lined waterholes. As all of the natural tanks were more or less stagnant and fouled by animals and birds which come to drink from the canyon pools, we were thankful we had heeded advance instructions and brought with us such water as we would need.

No ceremony attended out eating. Lunch bags simply were opened and emptied; and because of the hazard



Museum Director Lloyd Mason Smith (right) registering prospective hikers for one of his field trips.

presented by dry grass and leaves, no picnic fires were lighted.

After lunch we had an hour and a half to pursue our individual fancies. Some of the hikers lolled in the shade of the palm fronds, while others preferred the sun-splashed rocks. Many carried color cameras and were busy shooting through lovely palm vistas against a deep blue sky flecked with cottony clouds. There were some rock-hounds in the party and they searched among the cobblestones for treasures. A bird-lover discovered a last year's nest — which might have been gold plated for the fuss she made over it. Another woman and I explored down the canyon to the last palm while two of the men made their way far up the gorge to where the uppermost fronds were silhouetted against the sky.

Shortly before the time scheduled for departure, all of us miraculously reappeared at the lunchtime rendezvous. Sweaters and thermos bottles were retrieved by their owners; paper sacks and glass jars and orange peelings, carefully buried. When we again headed up the trail, not a scrap of evidence remained to show that a sizable party had eaten its noon meal and

spent nearly two hours in the little wild oasis in the canyon.

As we trudged back along the windswept ridges, through the loose sand of the washes and over the cholla-grown flats, it suddenly occurred to me that I had been so completely fascinated by the trail and my companions that not since arriving at Cottonwood Springs that morning had I given any further thought to the manner in which these non-desert folks might react to this environment so altogether different than anything they had previously known.

I knew now that there was no question about their reaction. They had liked it—every spine and sticker of it!

They had liked it because Lloyd Mason Smith had sold it to them, seasoned judiciously with desert lore and wrapped and tied in the cellophane and ribbon of his own enthusiasm . . .

With such a salesman at its helm, it isn't difficult to understand why Palm Springs Desert Museum—an institution relatively small in size and young in years—has already attained such popularity that it serves more than 35,000 persons during its annual season of six and one-half months!

Delving further into activities of the museum I learned that the Saturday field trips constitute but one phase of a well-rounded program.

A museum's interior worth, Lloyd believes, should not be limited to neat showcases, wall charts, stuffed birds and faultlessly lettered labels. Desert Museum has these, too; but more important, it serves the function of a community center for persons interested in Nature study, hobbies, Indian culture and allied pursuits. Bird study clubs, flower clubs, rock and mineral societies, stamp collectors, and amateur photographers gather here for their meetings. Guest speakers, each an outstanding authority in his line, are presented each Saturday evening, their talks covering such diverse subjects as "Boating on the San Juan River," "Homelife of the Navajo," and "Wildflowers of California." Most of the lectures are illustrated by excellent color slides.

Tuesday and Friday evenings are devoted to screening the finest educational motion pictures to be had; the Tuesday night program being so popular that scores of persons are turned away for lack of sufficient seats. Dur-



Two scenes in Lost Palms canyon. There is evidence that Indian tribesmen lived in this canyon long before the white man settled the West—living on the seeds of the wild palms and other trees and shrubs, and on the game which once came to this place for water.

ing the past winter, five Audubon Screen Tours were presented by the museum. Because a large attendance was anticipated at these showings, the use of Frances Stevens grammar school auditorium was obtained, but even this building proved inadequate to accommodate all who wished to view these exceptional travelogues.

During the museum year ending February 1, 1950, activities included the screening of 300 educational motion pictures, presentation of 53 guest lectures, and the conducting of 28 all-day field trips to such diverse points of interest as Indian Cove, Pushawalla Canyon, the elephant trees of Borrego desert, Santa Rosa Peak, Black Rock Springs, Dripping Springs in the Santa Rosas, Hidden Springs and Grotto Canyon, and other scenic and historical areas within 100-mile driving radius of Palm Springs. One overnight trip was made to Mitchell Caverns and Parker Dam.

With exception of one or two programs monthly which are restricted to members, all activities sponsored by the museum are open to the public without charge.

The late Don Admiral founded the original small museum in Palm Springs in 1938. After serving as director through 1938-39, Admiral was suc-

ceeded by Lloyd Smith who held that position until his induction into the armed forces at the beginning of World War II.

From 1941 to 1944 the museum functioned under the direction of Sam D. Hinton, who carried on this work in addition to part time employment at Torney General Hospital. With the close of the war, Lloyd returned to his post of director. From 1943 until 1946 the late Prof. and Mrs. T. D. A. Cockerell served as custodians, without pay, and many outstanding naturalists, desert authorities and scientists have served on the museum's board of trustees and advisory board.

No one could be better suited to the post of director than Lloyd Smith. His interest in natural history began during his childhood in Montana. At the age of eight he moved with his parents to Ontario, California; subsequently graduating from Chaffey junior college and the University of California. For his master's degree Lloyd engaged in research on the Joshua tree.

Almost since school days he has been associated with the eminent desert naturalist and writer, Dr. Edmund C. Jaeger. In addition to "inking in" about one-third of the drawings for *Desert Wild Flowers*, Dr. Jaeger's "bible" of Southwestern botany, Lloyd

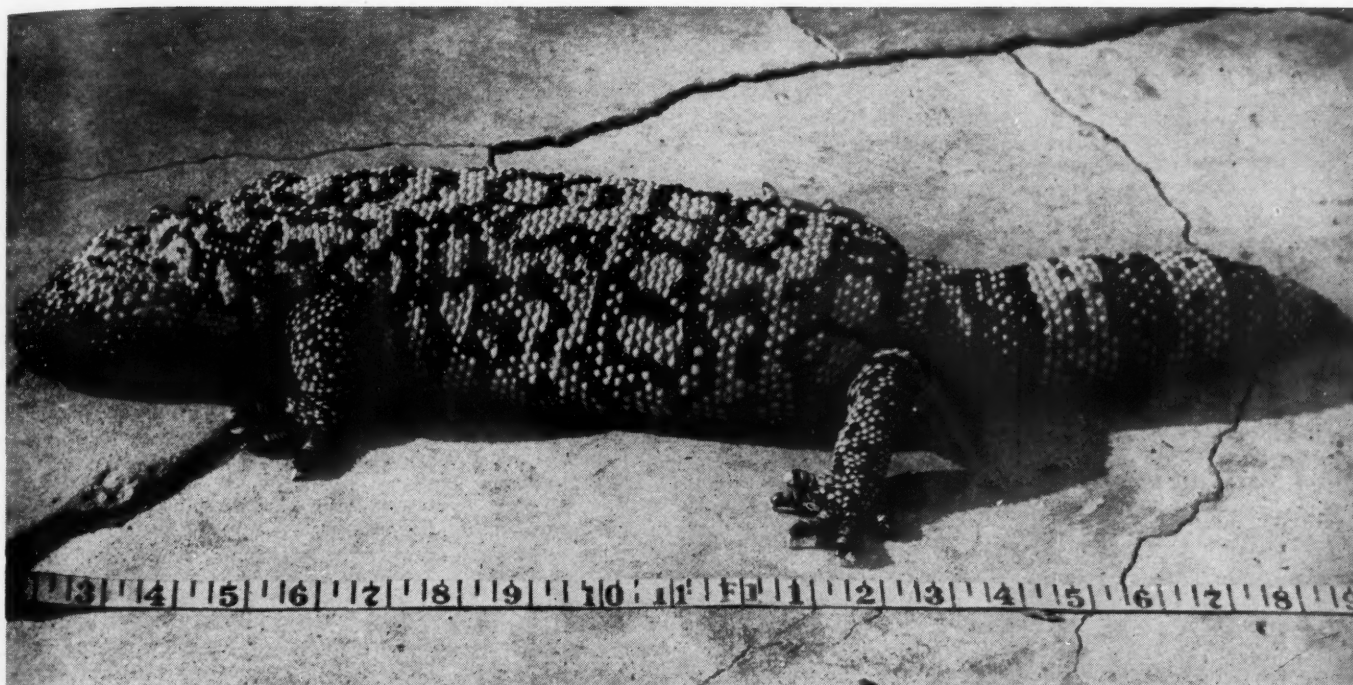
also did the clerical work and proof reading for that volume's second edition and collaborated in writing the first two chapters of Dr. Jaeger's latest book, *Animal Life of the Desert*, soon to be published by Stanford University Press. Dr. Jaeger has been a member of the museum's advisory board for a number of years.

Financially, the Desert Museum is supported by an annual allotment from Palm Springs Community Chest and by memberships, which range from a low of \$5 a year for active status to "Benefactor Memberships" awarded for contributions of \$5000 or more.

Every two months during the winter season the museum issues a printed calendar of events, including lectures, motion pictures and field trips. Copies of this program are available to persons who are interested.

In supporting the museum's far reaching program, people of Palm Springs are enriching not only their own lives but are making an understanding and appreciation of the desert available to thousands of out-of-state visitors who previously have thought of the Southwestern wastelands only as a terrifying place of desolation and death.

For this accomplishment alone, the museum would warrant its existence.



This Gila Monster is well fed, as is evidenced by its large tail. When short of rations it draws on the fatty substance stored in its tail.

I Keep a Gila Monster in My Home

Of all the wildlife creatures which roam the desert country the Gila Monster probably is the least known. The strange stories told about this slow-moving reptile are mostly fiction, for the reason that comparatively few people have had personal experience or even seen one of the lizards in the wild. Here then, are answers which are authentic because they were written by a man who has lived in the same house with a Gila Monster for a long period.

By WELDON D. WOODSON

Photographs by Keith Boyd

THE VICTIM of Arizona's most famous Gila Monster bite was Walter L. Vail, owner of the Empire ranch just southeast of Tucson. Although it occurred in May of 1890, it is still talked about. Some say he died; others, that he recovered but that each year at the date of the bite he would turn black and blue. Even in Sonora, the Mexicans have the story of the cowboy who rode into camp—dead—after being bitten by a Gila Monster.

None of these tales is true. I got the real facts from the Arizona Pioneer Historical Society, University of Arizona, Tucson. Its curator, Carl F. Miller, permitted me to copy a letter dated March 24, 1928, written by

Walter's brother, Ed L. Vail, at the request of Major George H. Kelly, state historian at that time.

Here's what actually happened: While attending a spring roundup, Walter Vail killed a large Gila Monster, which he tied on the back of his saddle. He rode back to the roundup camp. There, he found his saddle loose. To get off his horse, he put his hand up on the cantle of the saddle. The Gila Monster—not dead as thought—seized the middle finger of his right hand and hung on like a bulldog. Bob Robinson, who was with him, pried its mouth open.

Subsequently, they reached Dr. J. C. Handy, who treated the wound. Most noticeable symptoms were a swollen

tongue and an impairment of the glands of the throat. "My brother apparently recovered," wrote Ed, "but his throat was affected sometime after." This clears up the "ridiculous stories published about this incident," as Ed phrased it.

Many other false reports in regard to this lizard have gone the rounds. One is that it lacks poisonous glands, but its bite nevertheless can result in serious damage. Adherents of this theory explain that the reptile has no vent to discharge waste matter and is forced to vomit it. Filth collects around its teeth and the bacteria cause an infection. This is not true.

An examination of its mouth shows that teeth in both its upper and lower



Of the more than 3000 species of lizards in the world, only two are known to be poisonous. Keith Boyd holds them both—in his right hand the Arizona Gila Monster, and in his left hand the Mexican Gila Monster.

jaws are minutely grooved. Poison glands are located, however, only at the base of certain lower ones. The venom is a neurotoxin (nerve poison), similar to that of the cobra. But it is not as potent. A full dose cannot bring death to a normal, healthy human being. When it bites a person—on the hand, for instance—the poison is released, mixes with the saliva and may enter the wound, especially if it hangs on long and chews. When quickly removed, the venom seldom enters the cuts made by the teeth.

If you want to know how it feels to be poisoned by a Gila Monster, consider the case of the 20-year-old hitchhiker, who as he traveled from Phoenix north on Highway 89 discovered one near Wickenburg. He did not know its nature. So he picked it up, placed it in the bosom of his shirt and carried it there for the rest of the day.

The next morning about 8:30 he had reached Highway 66 midway between Ashfork and Williams, when, for some reason the monster became irritated and bit him in the abdomen. It held on with such firmness that when he pulled it loose, his flesh came away with its jaws. He was critically ill when a passing motorist picked him up a few minutes later and brought him to the office of a doctor in Williams. The doctor administered to him for more than an hour; then had him removed to a room in a hotel. "He was seized by a paroxysm of vomiting immediately after being bitten," the report states, "and these attacks continued at close intervals for hours afterward."

When I started to investigate the Gila Monster seven years ago, I learned that no single person had assembled more than a dozen cases. Through hard work, I have collected

158. Of these, 23 died. But do not become startled at that. Some were chronic alcoholics, others had various diseases, while insufficient data had been obtained on the remainder for one to form an opinion.

The cases of Walter L. Vail and the young hitchhiker furnish a few of the symptoms — swollen tongue, affected throat and vomiting. Other symptoms include excruciating pain, perspiration, convulsions, partial paralysis and dizziness. Often reported are swelling and discoloration at the site of the bite. Gila Monster's type of poison does not cause this. Explanations offered for this and other symptoms not from the poison are: the saliva contains non-venomous injurious properties, the teeth tear the flesh, and the lizard's mouth is laden with germs.

For first-aid measures when bitten, apply an antiseptic to counteract bacterial infection. Further treatment consists of hot baths, bed rest and a light diet. Do not become excited, for frequently fear—not the bite—accounts for the sickness. Some authorities suggest—as in rattlesnake bite—ligature, incision and cupping; others contend that this doesn't help. No specific anti-venom has been developed for Gila Monster poison. Of course, see a doctor and follow his prescription.

When desert friends ask me what to do when bitten, I reply, "Don't permit it to bite you. If it does, it's your own fault."

In practically all cases, the victims roughly handled it — even hurt it. When mistreated, a dog, cat or any other animal will protect itself. In captivity, it becomes docile and can easily be handled. This very fact, however, causes its keepers to become careless. Mrs. W. H. Halderman (Rattlesnake Nell) of Tucson houses her lizards in a wooden box back of the kitchen stove and allows them the range of her home. When out of doors in the sun, its disposition changes and it snaps at the least provocation.

Unmolested, it harms no one. Should you see one in the wild, let it go its way. Many kill it at sight and for that reason its numbers are becoming fewer. It possesses a real interest for naturalists and merits protection. The late Charles T. Vorheis of the University of Arizona maintained that there is no good reason for slaying every Gila Monster encountered. "Rather should we class it with the roadrunner and the peccary as unique features of our fauna," he pointed out, "a part of the characteristic landscape of Arizona, like the giant cactus of the State."

Actually, there are two Gila Monsters — Arizona (*Heloderma suspectum*) and Mexican (*H. horridum*).

The latter sometimes goes under the name of "Mexican beaded lizard." The natives call it *El Scorpion*. It grows to more than 30 inches in length and has a black color spattered with yellow. It thrives in Mexico along the coastal areas from the lower part of that country up into the extreme southern portion of Sonora.

Now, take a look at the Arizona Gila Monster — a maximum of 24 inches long, with a black and orange pattern that reminds one of a Navajo Indian blanket. The hues may vary somewhat. In the 'twenties, snake collector J. J. Don Q. captured four colored from pink and white to ivory and maroon. He offered a bonus for a pink-and-white one two-feet long.

In March, 1948, naturalist Bill Reynolds wrote me: "Where can I find a Gila Monster?" Based upon the locality data obtained from the various sources, I outlined for him the possible areas. Armed with my letter, he motored to the first site I suggested, near Gila Bend in southwestern Arizona. Fifteen minutes after he started looking, he caught a 16-inch one in a cattle path on the bank of the then-dry Gila River. Further efforts that evening and the next morning, however, proved fruitless. Due to car trouble, he was forced to abandon his plans to search in all the habitats I mentioned.

They may be found in the southern half of Arizona along the Gila River

and its tributaries. The counties are: Cochise, Graham, Greenlee, Gila, Santa Cruz, Pima, Pinal, Maricopa, Yavapai, Yuma, and Mohave. In Nevada, it occurs in Clark and Lincoln Counties; Utah, Washington County. Through the efforts of Charles E. Shaw, myself and a few others, it has been established that it resides in New Mexico in Grant and Hidalgo Counties.

It also makes its home in Sonora as far south as Guaymas. Not many miles away is Alamos, to where the Mexican Gila Monster is known to extend. There is a possibility, then, that the ranges of the two species may overlap, although as yet this has not been determined.

Other than these places, you won't find Gila Monsters in their native state. If someone asserts he saw one loose in the deserts of Texas, California or Lower California, he either was mistaken as to identity or it was an escaped pet. In the Mojave desert near Daggett a friend dashed up to me and announced: "I found a Gila Monster!" I followed him and it turned out to be a harmless chuckawalla.

To find out when it hibernates, how it sheds its skin, the hours it sleeps and other habits, I kept one—though my wife good-naturedly protested—in a living room closet for one whole year. My brother-in-law, Keith Boyd, also has been host to my Gila Monsters. So that they would be away from children,

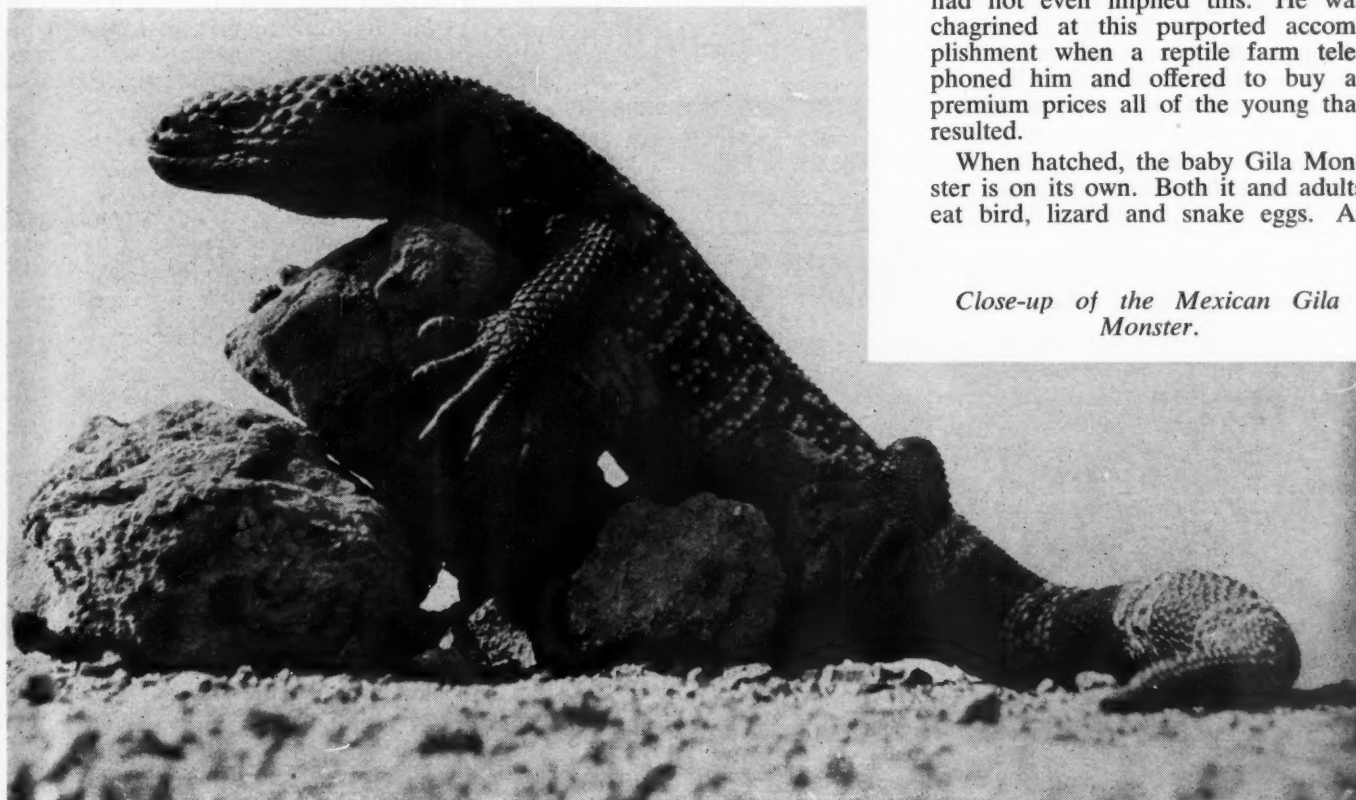
he built a partitioned cage high up in the end of his garage, one end facing inside, the other outside. Thus the respective occupants—a 16-inch Arizona Gila Monster and a 29-inch Mexican Gila Monster—could come out to bask in the sun, or retreat inside to the cool of the garage, as they pleased.

In the wild they mate in pairs. Subsequently the female scoops out a hole in damp sand, deposits a half dozen or more soft-shelled eggs—each approximately $2\frac{3}{4}$ by $1\frac{1}{2}$ inches in size—and covers them up. When they emerge, each is about two inches long—miniature replicas of their parents.

A number of reports tell of captive Gila Monsters that laid eggs. They invariably failed to hatch. Without dissection it is—as far as we know—impossible to be certain that an individual is a male or female. A number of clues have been proposed—size, color pattern, behavior and other factors. However, when the proponent killed the lizard to mount it, his examination disclosed that he had guessed wrong as to its sex.

Unwittingly, I had a part in a false report that Gila Monsters are bred in captivity. Some years ago, a national picture magazine ran photographs of one of my lizards. In the brief text, I mentioned Keith Boyd and how he handles them. When the material was published, I saw that the editors had taken upon themselves to change radically my introductory matter. The magazine stated that Boyd "breeds" Gila Monsters. Of course, I had not even implied this. He was chagrined at this purported accomplishment when a reptile farm telephoned him and offered to buy at premium prices all of the young that resulted.

When hatched, the baby Gila Monster is on its own. Both it and adults eat bird, lizard and snake eggs. At



Close-up of the Mexican Gila Monster.

TRUE OR FALSE

Next best thing to a trip on the desert is an hour with *Desert Magazine's* monthly quiz. It will take you to many interesting places in the Southwest, introduce you to the geography, history, mineralogy, botany and other interesting phases of desert life and lore, both past and present. Of course few persons know the answers to all these questions—but this is a good time to learn the answers. A score of 12 to 14 is fair, 15 to 17 is good, 18 or more is superior. The answers are on page 40.

- 1—A rattlesnake will not crawl over a horsehair riata.
True..... False.....
- 2—Desert mistletoe often grows on the Joshua tree. True..... False.....
- 3—Kachinas is the name given by the Navajo Indians to some of their gods. True..... False.....
- 4—Rainbow trout are now caught in the Colorado River below Hoover dam. True..... False.....
- 5—The Humboldt River in Nevada is a tributary of the Great Salt Lake. True..... False.....
- 6—The Elephant Butte dam is on the Rio Grande River. True..... False.....
- 7—Sunset Crater National Monument is near the base of the San Francisco peaks in Arizona. True..... False.....
- 8—Chuparosa is the name of a desert flower. True..... False.....
- 9—Part of the shore line of Lake Mead is in California. True..... False.....
- 10—Desert lizards are classed biologically as reptiles. True..... False.....
- 11—The desert lily grows from a bulb. True..... False.....
- 12—Date palms were growing wild on the Great American Desert when white men first came to this region. True..... False.....
- 13—Winnemucca was an Apache Indian chief. True..... False.....
- 14—Chief product of the mines at Ruth, Nevada, is copper. True..... False.....
- 15—The black mineral which commonly occurs in quartz is tourmaline. True..... False.....
- 16—The Santa Fe trail was in use before the Butterfield Stage line was established. True..... False.....
- 17—The Hopi bread, piki, is made from wheat. True..... False.....
- 18—Cedar Breaks is the name of a National Park in Utah. True..... False.....
- 19—The watershed of the Colorado River extends into Wyoming. True..... False.....
- 20—The Kaibab forest is in Arizona. True..... False.....

AN INVITATION TO DESERT READERS . . .

Palm Desert Art Gallery, featuring the desert paintings of more than 40 western artists will remain open from eight a.m. to five p.m. seven days a week during the winter season.

The gallery occupies the big foyer of the Desert Magazine pueblo at Palm Desert. Here, visitors will have an opportunity not only to see the best work of many of the Southwest's finest artists, but may also browse in the book and crafts shop and inspect the publishing plant of the magazine.

Director of the gallery this season is Harriet A. Day, formerly in charge of the Desert Inn gallery in Palm Springs.

There is no admission charge to the gallery, and the Staff of Desert Magazine extends a welcome to all who come, and especially to members of the big family of Desert readers.

Staff of The Desert Magazine

Palm Desert, California

times, the large ones make a meal of small mammals. They are known to feed on carrion. In their forage for food, their most active period is at dusk, although collectors have found them at various hours. One could say, then, that they work the swing shift, and that they sleep during the heat of the day or when the morning's temperature is too frigid.

In captivity, break a hen egg once a week in a vessel and your Gila Monster will grow fat, as evidenced by its enlarged tail. When rations are scarce, it draws on this fatty substance. They do well on hamburger meat, but I prefer to feed them eggs. Rattlesnake Nell tells me that she feeds hers eggs, liver and potato salad. This last is a unique menu for them.

They need a container of water. For hours, they will soak themselves in it, although, strangely, their natural habitat is the arid desert. Naturalists, for three quarters of a century, have marveled at this unusual trait.

In the fall of the year, the Gila Monster hibernates. It conceals itself in a rock crevice, or similar niche. Zoo keepers throughout the nation exhibit them, but by means of a thermostat-control heat they never permit the temperature of the cages to fall below 65 degrees Fahrenheit; rather, they maintain them from 75 to 85 degrees.

My notes show that my living-room-closet Gila Monster went into hibernation November 16 and came out March 12. On March 15 it drank copiously of water, then, the next day, ate the large portion of a raw hen egg. During these months, it demonstrated no audible movement with the exception that for a few minutes it squirmed about on January 8.

In our capsule picture of these lizards, there still remains a few things to be said. It sheds its skin two or three times a year, but in patches, not as a whole, as is the case of the snake. In captivity, the Arizona Gila Monster has lived for twenty years; the Mexican, considerably less than that. Rattlesnakes have been pitted against Gila Monsters. In some instances, they ignored one another; other times, the lizard killed the snake. Even so, not much is known about these lizards' natural enemies. Slow of gait, they have a powerful weapon—their severe bite and poison.

Of the approximately 3000 species and subspecies of lizards in the world, only these two are known to be poisonous. For that reason, scientists of other countries — England, France, Germany, Austria, Sweden—have published papers on it. Although it thrives solely in our desert country, it belongs to the world as far as interest is concerned.

They Grow on the Desert Uplands

By MARY BEAL

IF YOU visit the upland desert regions in late spring or early summer you'll probably notice many low rigid bushes with bright-yellow blossoms, usually called Horsebrush, or Cotton Thorn, or occasionally Spring Rabbitbrush. The regular Rabbitbrush blooms in the fall.

What inspired the common name Horsebrush, I do not know, but some botanists apply it to the whole genus, a small one of only half a dozen species.

The Cotton Thorn at fruiting time, liberally bedecked with its tufts of silky hairs and pappus bristles, set in the axils of the long conspicuous spines, is obviously well-named. Most of the species show in a marked degree the characteristics that are considered typical of desert shrubs—white-wooly or grayish herbage, spines, and reduced leaf surface. As a rule they are not given to dominating profusion over wide expanses but their bountiful accents of sprightly color give a festive air to their neighborhood.

Their usual associates are Creosote Bush, Burroweed, Squaw Tea, Explorer's Pepper, Rabbitbrush and Shad Scale, with a sprinkling of Beavertail and other Cacti, Buckwheat, Joshua trees and other Yuccas.

As a group the Horsebrush clan is partial to an arid environment, but two of its members have established themselves beyond the mountains bordering the desert and are adapted to more varied climes, much at home on both sides of the range.

The tender new buds and leaves are sometimes browsed by sheep and are considered more or less poisonous, but their palatability is so low that they are not eaten when better graze is available.

Botanically the Horsebrush goes by the name *Tetradymia*, which means in Greek "four together," the number of flowers in each head of some species. The one best known is probably the Cotton Thorn, listed as

Tetradymia spinosa

This is one of the taller species, 2 to 4 feet high, the seasons branches and leaves densely clothed with a silvery felt-like wool. The primary leaves are modified into stiff needle-like spines $\frac{1}{2}$ to $1\frac{3}{4}$ inches long. In their axils are clustered several narrow secondary leaves, $\frac{1}{2}$ inch or less long, losing their wooly cloak early and showing their light-green color. The flower-heads are also axillary, with 6 or 7 rayless yellow flowers in a head, these clusters arranged singly, or now and then in pairs, along the upper part of the branches. The bush makes a fine showing in full bloom and also when the heads have ripened and become conspicuous tufts of silky cotton. The achenes are covered with long soft white hairs nearly equal to and obscuring the stiff pappus bristles. This combination forms very attractive spherical tufts, like fluffy balls of silk.

Look for the Cotton Thorn in bloom from April to June on arid slopes and flats in the southwestern Mojave Desert, along Owens Valley to Nevada and southern Utah, and in the western canyons of the Panamints.

Next in line of familiarity is the Mojave Horsebrush,

Tetradymia stenolepis

Spiny and intricately branched, it stands $1\frac{1}{2}$ to $2\frac{1}{2}$ feet high, the herbage permanently whitened with felted wooly hairs. The oblanceolate primary leaves are trans-



Littleleaf Horsebrush in Lucerne Valley.

formed into rigid spreading spines $\frac{3}{4}$ to $1\frac{1}{4}$ inches long, often with clusters of short secondary leaves in their axils. The flowers are canary yellow, 5 in each head, the involucre bracts very thick and rigid. The achenes are not hairy and the rather coarse pappus bristles are bent at the tip.

May to July is the period of bloom, on mesas and slopes of the Mojave Desert from Antelope Valley in the West to the Providence Mountains in the East, also in Inyo County Mountains.

Ranging farther afield is the Littleleaf Horsebrush, or scientifically,

Tetradymia glabrata

Easily recognized by the absence of spines and the array of tiny linear leaves disposed in clusters along the branches. The ascending or arched branches form a rounded bush 1 to 3 feet high and more or less white-wooly. The leaves soon lose their wooly felt and show their green color. The stiff primary ones do not conform to the genus habit of early changing to spines but soon fall. The diminutive secondary leaves remain, less than $\frac{1}{2}$ inch in length, thick and rather fleshy, clustered at short intervals along the branches, which start out wooly but soon shed their wool. On the sterile shoots the leaves are closely pressed against the stem, with no axillary leaves. The rayless flowers grow in clusters of 4, the heads arranged in cymes at the end of the branchlets, creating a golden mantle which almost conceals the herbage. The achenes are shaggy with long soft hairs mingling with the pappus bristles. You should find it flowering from May to July. In full bloom the shrubs are like a magnet with their showy covering of glowing color, truly eye-filling.

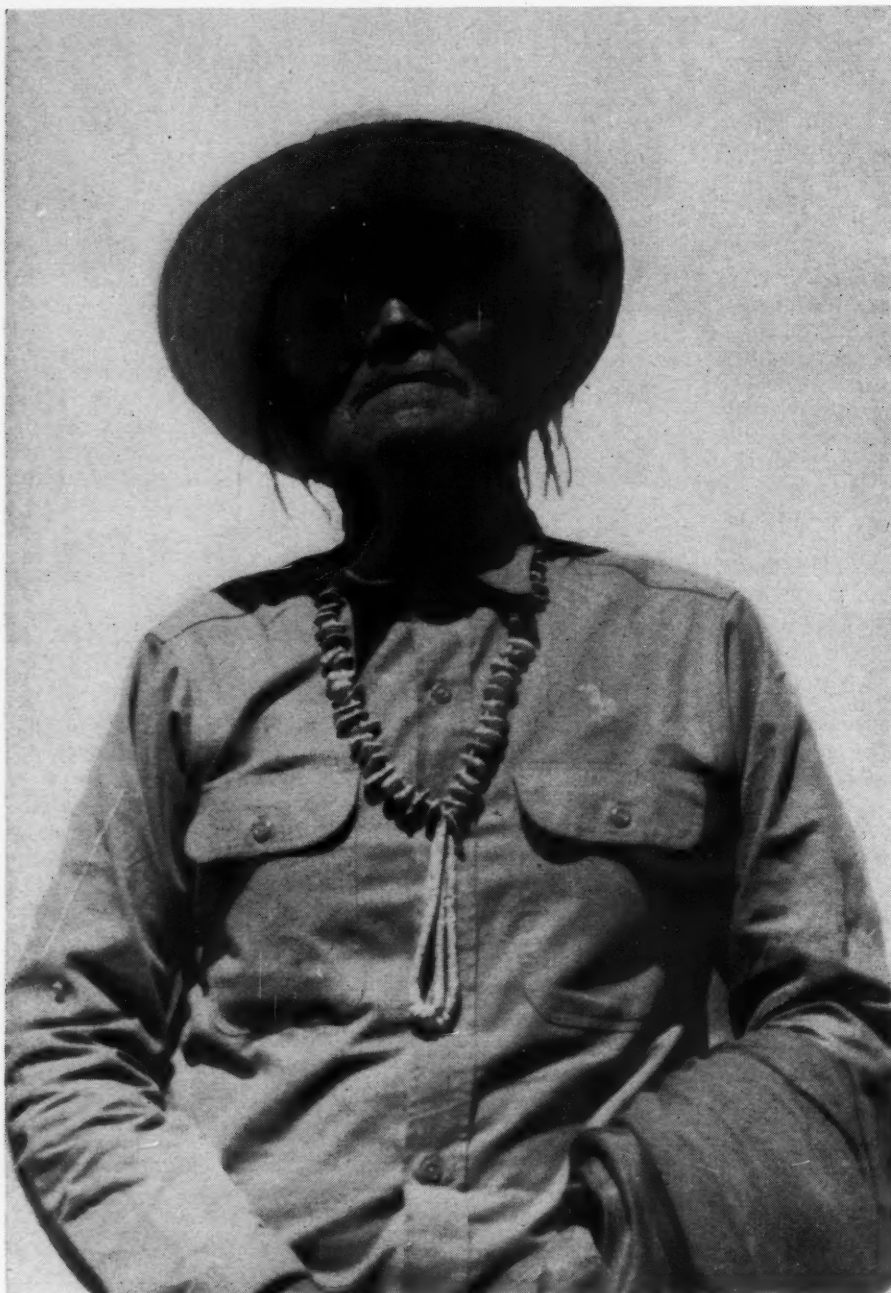
It grows on plains and slopes of the upper Creosote-bush desert, on up into the Juniper and Piñon domain in Utah and Nevada, and in California along the western borders of Owens Valley, south of the western and southern Mojave Desert, also abounding in the Sage-brush desert of the Great Basin.

Occasional on the desert is the Hairy Horsebrush,

Tetradymia comosa

An erect shrub 2 to 4 feet high, with many wand-like branches, the herbage permanently white-wooly. The earlier soft primary leaves are an inch or two long, the later ones stiff and spine-tipped, sometimes with smaller leaves in the axils. The heads, very shortly stemmed, 6 to 9 flowered, are grouped in terminal flat-topped clusters. The soft wool covering the achenes is long enough to conceal the pappus bristles. Its desert locations are western Nevada, Owens Valley, and the northern Mojave Desert, blooming in July and August.

... Night with the Navajo



Hosteen Nez. "In his veins is the blood of true aristocracy."

By ANN ELLIS SCOTT

I WAS APPOINTED to a position with the Navajo Service by the United States government. It was my very first job after graduating from a Southern college and my first trip west of the Mississippi River. My family and friends did everything to discourage me. They related gruesome tales of Indian savagery during early uprisings. They pointed out to me that the country was wild and unsettled, and that people would draw their own

conclusions about any young lady who tried to buck the last frontier, unescorted.

But love of adventure was strong within me, and I needed a job, so I arrived at Gallup, New Mexico on a cold, rainy morning in November. I was to be met and transported by government car to Chinle, Arizona, the subagency to which I had been assigned. There was no one to meet me when I arrived.

I ate breakfast at eleven o'clock in the dining room of El Navajo, saun-

When a southern college girl applied for work in the U. S. Indian Service they sent her alone to the heart of the Navajo reservation — and here is the story of her first night in a hogan.

tered about the lobby, and walked in the rain outside to get a view of the town. The buildings were all low, and in the gray rain, appeared rather drab. Few people were on the streets because it was Sunday, so I went back to the lobby of the hotel, bought a magazine and tried to concentrate on its contents.

My opinion of the Department of Interior was at low ebb, when at 6:30 o'clock in the evening, the door opened and a tall dark man entered. He was wearing a ten-gallon hat, levis with matching jacket, and cowboy boots. His black eyes swept the lobby at a glance, and he came straight to me. Without ado, he said "Where your bag? Let's go."

I was startled at the Indian's appearance and abruptness, and felt vast relief when I saw the clerk at the desk coming toward us. She smiled reassuringly and asked, "What is your name and for whom do you drive?" The young Indian promptly answered, "Name Tony. Drive for Navajo Service, Chinle area." She turned to me and said, "It's all right. This is your driver and he must be a good one to have made it over those roads in this weather."

I entrusted my bags to Tony and followed him through the door. Darkness had fallen and the street lights were on. Suddenly I hated to leave town, even though it had looked bleak and forlorn in the afternoon. Tony dropped my bags down beside a pick-up truck and said "Get in."

So I was to ride in a pick-up with a savage! I fairly seethed with resentment, and instead of getting into the cab, I stood stubbornly by to see what became of my luggage. The Indian arranged a tarpaulin carefully around it and tied it securely, and without another word to me, he stepped into the cab and started the motor. Hurriedly I climbed in with him and slammed the door. Never before had I encountered such rudeness. I could not have known then that Navajo and Anglo etiquette differ in many respects.

We left the lights of town behind us. Six miles out we turned left onto a gravel road and headed northwest. I

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looked through the window and could see nothing but blackness. No lights, no trees. Just black space.

Flying gravel and the roar of the motor were the only sounds.

In the dim light of the cab I glanced at the driver. What I saw recalled the stories which some of my friends had told me in hope of keeping me at home. The Indian's face was thrown into bold relief. High cheek bones, slanting eyes, immobile lips.

I admit that I felt vastly superior to the Navajo who sat beside me. I also was curious. My feeling of superiority permitted me to overlook the rudeness of his manner, and I began to think about trying to make conversation. Another glance at the stern face discouraged that. "Very uncommunicative," I decided and pressed my face against the cab window.

After a while scrub cedar appeared at either side of the road, and we began to climb. Finally the cedar gave way to tall pines, and my ears hurt. The gravel ceased to fly and the pick-up followed muddy ruts. Rain splashed against the windshield and froze there.

I became nervous and tense. My feet were cold and I wondered if the heater would work. "May I turn the heater on?" I asked abruptly, and was surprised to see Tony smile. "Sure," he said and reached down and moved a button. Warmth flooded over my feet and I felt much better. Well, if he could smile like that, maybe he could talk too. I wanted to talk. It seemed hours since we had left town and the roar of the motor was monotonous.

"This road is bad, isn't it?" I ventured. The answer came surprisingly fast. "No. This road good. Snake Flats bad."

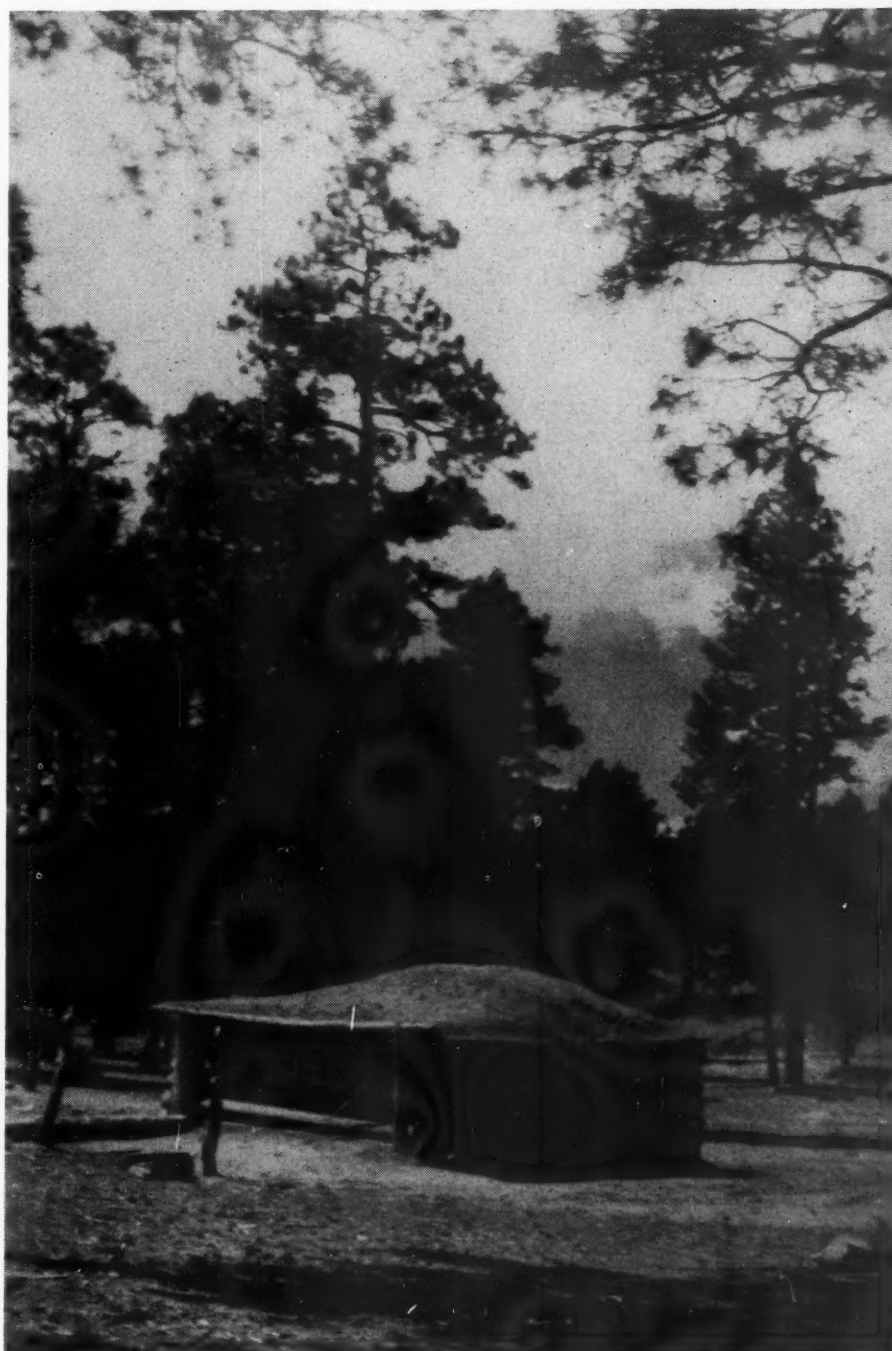
I thought that over for a few minutes and then asked, "Where are Snake Flats?"

"About 12 miles up the road," he answered.

So the worst was yet to come! I was getting nowhere in making conversation, so I offered Tony a cigaret. He took it gratefully, and smoked fast. We continued on in silence. After a long period, Tony stopped the truck and said, "Got to clean windshield." When he opened the door, an icy blast entered the cab. He took his pen-knife from his pocket and scraped some of the ice from the glass.

After a little while longer in silence, we reached Snake Flats. The pick-up skidded and slid from one side of the road to the other, but Tony managed to keep it moving.

"Why do they call this Snake Flats?" I asked. I should not have spoken because it required all of Tony's concentration and skill to keep the truck moving, and just as he made ready to



Hogan in the high timbered country above Chinle where the author was stationed.

answer my question, the rear end of the pick-up settled into a ditch and the front wheels began to spin.

Only twice did he make an effort to pull out. With each attempt the wheels cut deeper. Then he stopped the motor and pushed the black stetson far back on his head.

I looked at him and saw that his face was wet with perspiration. How thoughtless I had been. Tony had been working very hard and I had kept the heater on for my own comfort. He asked me for another cigaret, and I passed the package and held the lighter for him.

"What will we do now?" I asked.

"When I smoke this cigaret, I will see," he answered.

I knew that Tony was thinking very hard.

Throwing the butt away, he took a pocket flash from the glove compartment and said, "You wait here." He stepped out into the cold, stiff mud and disappeared into the darkness.

The wind howled and rocked the cab. I sat very still and listened to the mud drop from the fenders. Suddenly a shrill howl came out of the darkness. It was like nothing I had ever heard before. I prayed fervently. What I

wouldn't have given to have been back among my own people in the balmy Southland!

Then, faintly at first, I heard the plop-plop of distant foot steps, and saw a beam of light. Tony was coming back. No longer did he seem a stranger or an alien. No longer did I feel superior to him. After the frightened waiting, which seemed endless to me, Tony seemed like an old friend.

He climbed into the cab and shivered. "Did you hear a howl?" I shot the question.

Tony slowly smiled. "Coyote," he answered. He continued, "Hogan over there. Not too far. We go now." I already knew that "hogan" meant house. I felt better.

The Navajo looked at my three-inch heels and frowned. "Wait," he said, and went to the back of the truck. When he re-appeared, he was holding a pair of rubber boots. They were much too large for me, but he indicated that I should wear them, and I pulled them on. He reached down and turned the high tops down for me in order that I might bend my knees in walking. After turning the truck lights off, he led the way into the night.

I stumbled along behind him. Once he had to turn and retrace his steps to pull one of the boots out of the mud for me.

Finally I saw a faint square of light, and knew that we should soon find shelter. Tony pushed open the door without knocking, and I followed him into a dimly lighted room.

A tall elderly man arose to meet us. He had fine features, and his gray hair was long. Deep lines etched character into his walnut-brown face and his dark eyes held a friendly twinkle. He must have been well over six feet tall, and his shoulders were broad and massive. Tony said something in Navajo, and the man smiled and extended his hand. As I felt his warm hand-clasp, Tony said, "This is the hogan of Hosteen Nez, and he say you are welcome."

A kerosene lantern hung from the low ceiling of crossed logs. The room was octagonal in shape, and a fire burned in the center on the earthen floor. Hosteen Nez placed a sheepskin rug for me before the fire, and I sat down upon it.

Tony sat near the wall and talked with our host. An elderly woman in bright velveteen blouse and voluminous skirt sat against the rear wall and looked intently at her hands. I pulled off my boots and extended my feet to the warm circle of fire.

I looked about me. A crude, home-made weaving loom stood in one corner and a half finished rug upon it. A saddle and bridle hung against one

wall, and near these, suspended from a wooden peg in the wall, were a silver necklace and several strings of turquoise beads. The silver gleamed softly in the dim glow of the lantern's light. Against one side of the room there was a veritable mountain of blankets and sheepskins, and rugs, all folded neatly. Groceries, and a few pots and kettles and pans were arranged along the back wall.

Hosteen Nez spoke to the woman and she immediately arose, took a tin coffee pot from a bench, filled it with water from a barrel which stood near the door, and placed it upon the coals. She took flour from a 50-pound sack and made dough for bread.

The woman appeared a little younger than Hosteen Nez. Her face was inscrutable but handsome. Her black hair wore a center part, and was drawn severely back and tied into a great chignon. Turquoise pendants hung from the lobes of her ears, and great silver buttons studded her velvet blouse. Her hands were slender and small, and I thought the silver and turquoise jewelry which adorned them looked especially lovely against their bronze coloring.

As the coffee bubbled, the aroma filled the room, and I watched fascinated, as the woman shaped huge round cakes from the dough, by slapping the circular disks against the heel of her hand. These, she placed in an iron skillet half filled with hot fat, over the coals. As soon as one turned a golden brown, she placed it upon a tin plate, and deposited another in the boiling fat. Soon the plate was heaped high with the fried bread, and tin cups were passed to Tony and me. Tony poured my coffee and filled his own cup. Hosteen Nez joined us in the repast, and the woman retired to her seat at the back of the room.

The men talked and Tony interpreted for me. "Hosteen Nez say 'Eat all you want, you welcome.'" I smiled at the man and passed him a cigaret. This pleased him, and he held it close to the end and took short, quick pulls at it.

After we had finished eating, the woman came forward and removed the cups. She brought fluffy white sheepskins from the high stack against the wall, and began piling them into soft mounds for beds. Over each mound, she placed a couple of the brightly woven blankets. Then looking modestly about, she lay down upon one of them, pulled the blankets over her, turned her face to the wall.

Hosteen Nez and Tony continued to sit and smoke, and they even included me in their conversation. The elderly man would ask a question, Tony would interpret, and I would answer.

"Where your home?" he say," Tony would ask.

After I had answered and Tony interpreted, the old man would smile and nod his head understandingly.

"They raise lots sheep there?" he say."

I answered that we did not raise a great many sheep.

When Tony had interpreted this, the old man shook his head sorrowfully, as though he considered this a calamity. Finally Tony said something, and both men laughed loudly. Then turning to me, Tony said, "Lots of coyotes around here, maybe. No?" I laughed too, and knew that the Navajo people have a sense of humor.

Finally Tony pointed to one of the fluffy mounds, and said, "He say you sleep there." And thoughtfully added, "Take this flashlight when you go out."

I was grateful for his thoughtfulness, and outside I noticed that the stars were shining, and the wind had calmed.

As I slipped off my shoes before the fire, the two men went outside, while I crawled onto the pallet of sheepskins. Tucking the blankets about me, I stretched luxuriously and slept almost immediately.

When I awoke, the woman was kneeling before the fire. Potatoes were frying in a pan, and golden tortillas browning in a skillet. Coffee boiled, and I felt wonderfully refreshed. The men were nowhere in sight. I arose and said, "Good morning." The woman smiled and motioned to a bench by the door on which stood a bucket of water and a tin wash-basin.

I did my cleansing, never dreaming that water had to be hauled six miles for home use. When I went outside to throw away my bath water, I glanced toward the road, and saw Tony and Hosteen Nez coaxing a pair of horses to pull the pick-up back upon the road. The day was golden in the early morning sun. The air was crisp and cold, and the distant mesas were tinted pink. I felt that I was a part of all this, and strangely at peace with the world.

When the men returned, we ate breakfast together, and again Hosteen Nez urged me to eat plenty because we still had a long drive ahead of us.

After breakfast Tony said "Now we go." I shook hands with our kind host and hostess and thanked them for their kindness.

This was the beginning of my friendship with the Navajo people. In spite of diminishing herds and extreme hardship, the Dineh are proud and hospitable. In their veins there is the blood of true aristocracy, and in their way of life, genuine democracy.

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In her diary this month Catherine Venn tells of the finding of an old Indian trail on the desert not far from her cabin—and of the trail shrines left there by prehistoric tribesmen. Every day brings some new interest to this city girl who came out to live alone in a remote waterless section of the Southern California desert.

Where perhaps a moccasined Indian maiden had stubbed her toe on the rocks and dropped the olla she was carrying on her head.



Diary of a Jackrabbit Homesteader . . .

By CATHERINE VENN

Photograph by Harold Weight

IT WAS late afternoon on my desert homestead, and cool for early summer. Through a fine cloud filter the sun was projecting startling lighting effects on the bare-ridged out-stretched arms of the bulky mountain that mothers my Rock Hill.

High lights and soft shadows played on the graceful ungarnished surfaces of these arms, one moment giving them the appearance of being carved from alabaster, the next the color of molded clay. Another shift of the cloud lens revealed and intensified their rich mineral tints. There were pinks and corals, blue-violet and green, and ox-blood red. This pageantry of color inspired a climb in quest of colorful rock specimens.

I strode off in the direction of a rust red spot high in the crook of the arm that embraces Rock Hill. Beyond the Big Wash I saw a faint oblique path that crossed the rock-strewn bajada. I veered from my course into the oblique path as naturally as though I were following a trail leader. Halfway up the crest, the trail lost itself among the large tumbled boulders.

I was ascending a slope sprinkled with white quartz interspersed with the creamy pink and green foliations of feldspar, both familiar minerals on my little rock hill. The smooth, desert-lacquered rocks felt hot to the touch as I worked my way to the top. There below, the unadulterated desert stretched out in unearthly stillness. The distant dunes were ivory shadows across its reaches. So absorbing was the panorama that I lost interest in my original mission.

Finally I descended carefully over the varnished rocks, and picked up the foot trail that had led me this way. What were the rock piles of light colored stones spaced

so regularly along the trail? And how had they escaped my attention on the uphill climb? Were they trail markings left by vanished predecessors? What were these interesting fragments I was about to step on, so like the color of the earth they were barely discernible.

I bent over the weather-baked pieces, touching them as though they were something sacred. Apparently they were the flat segments of a clay vessel. I was tempted to scoop them up and cement them together. But somehow I couldn't. I was trying to piece together their mute, yet graphic story.

The finely etched line of the footpath slanted toward the canyon stream. Perchance an Indian maiden, hastening on her way to the stream, had stubbed her moccasined toe, and her fragile water jar had slipped from her grasp and broken about her feet. Surely, then, these were potsherds of an olla. An olla fashioned by brown, supple hands out of the earthy clay. Now, but poignant remnants of the elemental beauty, character and artistry of primitive culture—fading on the sands of time.

All the civilizations of mankind were portrayed in those fallen potsherds. Just as all that man fashions out of the earth is but clay in the hands of time, eventually to lie in faded fragments over his own burial ground. Yet out of the breakage of all that is temporal, the indestructible eternal is preserved in the mysterious vaults of the desert, to be found by those of successive cultures who come to its silences and peace.

I told no one of my discovery, because I wanted to keep the secret I shared with the spirit of an Indian maiden at our little shrine of the potsherds.

Later, in company with some desert mountain climbers, many miles from Rock Hill, we hiked to an Indian Trail Shrine. Then I knew what the trail markings were that I had found on my jackrabbit homestead section.

Questioning the hikers, I learned the Indian legend of trail shrines; how the Indians dropped rocks at intervals along their trails for good luck on their journeys.

There were excavations under some of the shrines where people had dug in search of artifacts. There were a few scattered potsherds about, but none, I thought, with the delicate texture of those of my Indian maiden.

Find one thing and you'll find another, so the saying goes. Returning through the thorny brush after finding the potsherds, I paused to admire a fine specimen of cholla. Deftly protected from enemies, a desert bird had built her nest in the thickest of its spines. When I learned it belonged to a cactus wren I was delighted. Because only recently had I learned that my spot-breasted, "gurgling bird," as I called it, was a cactus wren.

This friendly bird, which I had thought too big for a wren, sat by the hour mornings and evenings, throating a long, breathholding, gurgling sound on the same pitch. It is my little brook, and I like its pleasing monotone. But its music cannot be compared with that of its cousin, the canyon wren. Its melodious cadence that tumbles the scale so exquisitely, is, to me, one of the most beautiful sounds on earth. I also love the mourning dove's plaintively sweet, *coah-coo-cooo-coo*, and the querulous, three-syllabled, engaging *chi-quer-go* of the quail—encouraged with crumbs at Rock Hill. Here wild life is passionately protected. When hunters threatened, they were routed with the healthy respect most men have for redheads.

I returned to my cabana and to the little white wash basin that sits on a stump beside my door. I had learned to like washing in this open, camp-like way. It seemed more freshening to the skin; and I lingered over it, because on the morrow I would be deserting Rock Hill for the summer. But many evenings and summer nights would be spent on the little hill, because the house I was to occupy, while its owners were at the coast, was not far away.

Rock Hill's plumbing was in its primitive state, and I was going into a domicile that boasted three baths and

three sinks. I hoped I would remember how to behave amidst such luxury.

While I lingered over the wash basin several cars were coming slowly up the highway. The car in the lead turned into the section road, and the others followed somewhat uncertainly. I recognized them as the cars of friends from the village—all but one car, which clashed with the natural surroundings. It was bright canary-yellow, long and low-slung, and heavily chromed. It flashed up the road in the slanting sunrays. It was the toy of a rich man, and its crimson leather upholstery paled before the bevy of loud costumes that hung precariously on animated tan forms.

Some of my callers were folks tenaciously struggling to put down roots in desert soil, some were old-timers. The alluring evening had invited them to come to Rock Hill for a picnic supper, and surprise its mistress. They brought well filled hampers, and we kindled a fire of dead cholla branches and long burning mesquite in the pit lined with smoke-blackened stones between the cabana and the little rock hill. Soon the glow of the coals matched the color of the sunset. We sat about on natural chairs of the smooth, polished rocks and on wood stumps to enjoy a repast of all that goes with wieners roasted on palo verde sticks over mesquite coals.

The goodnight *quay-ho* of the quail and the nestling sounds of my feathered neighbors were lost in our chatter, but my keenly attuned ear to a night serenader caught his high-pitched bark. It said, "I am here." Always it was Boy with the first silvered outline of the new moon. His bark was softened for my ears only. He was close in, somewhere in the brush just across the little wash. I slipped unnoticed from the circle to where the cabana shielded me from my clandestine mission.

I called across softly to Boy. He gave three muffled yips, sharp with resentment—his dish was empty and his realm invaded. I returned for Boy's supper, and astounded my callers by telling them that I had a hungry coyote on the bank of the wash. I told them to remain quiet if they wanted to eavesdrop on a conversation with a coyote. I walked to the wash's edge with Boy's supper plate, laid it down, then walked farther down on the bank and coaxed and called to my friend of the wild as if he were human.

I was rewarded with that almost human voice, which more than any other four-footed wild creature reveals his mood. Now it sounded friendlier, as if he wanted to come out of the dusk and join our campfire. He knew he was being offered a plate.

"How is my Boy tonight? Hungry?" I called over. A long wait, and then a forlorn cry, almost of self-pity, farther away, and changing to a terse, derisive bark.

"Well, I've heard everything now!" exclaimed one of the women. And the others chimed, "me too!"

"This spot is so primeval, I forgot to take the case of beer out of my car," said the man with the yellow roadster. "Don't desecrate it now," someone replied. And nobody spoke up to the contrary.

The man who brought the guitar began strumming "Still Waters." A lovely girl with a melodious voice picked up the song. We all joined in the medley that followed. It was darkening, and the somnolent mountain was pulling up her misty, night veil. The evening star shimmered brilliantly in her stellar role in the star studded stage overhead.

One of the well-to-do couples confessed it was the best evening they had spent in all the time they had been on the desert. And the man with the big yellow toy grasped my hand in leave-taking and said, with emotion, "I've wooed most all of the beautiful spots in the world, but tonight I married your desert."

5 MINUTES FROM DOWNTOWN LOS ANGELES

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THE
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504 SOUTH BONNIE BRAE



LETTERS . . .

Lost Silver of the Padres . . . Holtville, California

Desert:

John Mitchell's story of the lost Jesuit silver in your November issue recalled my acquaintance with an 82-year-old man I met three years ago. He tried to interest me in the lost treasure, and the information he gave corresponded with Mr. Mitchell's story.

He had been with a crew working on a road in southern Arizona and one of the men in the crew had an old parchment in a lead box found under a rock during the road excavations.

The story sounded plausible until he mentioned nine million dollars as the amount of the lost treasure. That was too much money for me—and I decided it was another of those tall tales of the desert.

He said he had found the mine, and described it much as Mitchell wrote. He said the door was iron, on a side cliff, but was blocked by a rock slide, and he wanted me to contact some one with a power shovel who would help us get into the tunnel. But nine million dollars sound like too much lost mine for me.

I wish you would publish your magazine twice a month.

THOS. E. WEBB

The "r" Was Superfluous . . .

Fullerton, California

Desert:

In the story *Lost Silver Mine of the Jesuits* in your November issue I find reference to a portion of the country being called "Primeria Alta" by the early Spaniards.

I think the spelling should be Pimeria Alta. This name was given to that part of the country inhabited by the Pima Indians. There was also a portion of the country called Pimeria Baja inhabited by Pimas.

Papagueria was so named from the fact that area was inhabited by a tribe called Papagos.

Professor Herbert E. Bolton in his books *Anza's California Expeditions* gives many references to Pimeria (accent on the second i) and I quote from note 3, page 12 volume 5.

"Pimeria Alta was the country of the Upper Pimas or Pimas Altos. It included the region between the Altar and the Gila Rivers. The northern part of this district was included in the Gadsden Purchase. Pimeria Baja or the country of the Lower Pimas, lay to the South of Pimeria Alta."

HENRY P. HOLMES

Lesson for Rockhounds . . .

Boulder City, Nevada

Desert:

I began to enjoy the desert 40 years ago. It was wild and free then. It is somewhat free now—the last of the wide open spaces without a "don't" sign every mile. By the same token, let's preserve its beauty unmarred.

At a recent encampment at Lake Mead I looked with horror as a swarm of rockhounds, each armed with a hammer, moved over the ground making little ones out of big ones, without rhyme or reason. In 10 years of this there will not be an uncracked rock on the whole desert.

It is high time the rockhound clubs took the hammers away from the hounds, and taught them how to take out specimens they want and leave the rest intact.

HERBERT L. FRITTS

Trader in Nevada . . .

Reno, Nevada

Desert:

Perhaps some of your rockhound readers will be interested to know that some species of wood will fluoresce the same as rocks.

I am more interested in wood than I am in rocks, and if any of your readers can supply me with logs of desert wood I will give them Nevada Wonder Stones in exchange. These rocks are highly colored and weigh from one-half to two pounds. I want many of the desert's woody plants to study, and will give more information to those who write me at 3325 Smith drive, Reno.

CLAUDE R. MOWRY

Christmas on the Reservation . . .

Groversville, New York

Desert:

As a result of the publicity *Desert Magazine* has given Shine Smith's Christmas parties for the Navajo Indians this community last year sent more than \$3,000 in cash and supplies to Smith and to another organization interested in Navajo charities. I made my contribution by giving illustrated lectures with 300 kodachrome slides I have, and turning the receipts into the fund.

Shine writes me that he is planning two Christmas parties this year and will appreciate any contributions of clothing, food, cash or items of practical use for the Navajos.

HARRY FERGUSON

Contributions to Shine Smith's annual Christmas parties may be sent to him either at Flagstaff or Tuba City, Arizona. Shine is a missionary who personally distributes all gifts sent to him for the Indians.

—R.H.

Flash Flood on the Desert . . .

Agua Caliente Springs
Julian, California

Desert:

Here is an experience at Agua Caliente in San Diego county which may interest some of your readers.

We are in the Anza Desert State Park 35 miles from Julian. These hot springs are wonderful. We have hot water, mesquite trees and, until recently, pets—cottontails, doves, lizards, pet snakes and quail. We fed them and enjoyed their antics as they played around camp. I had a little tiger lizard which allowed me to pet it.

On the 7th of September we had a flash flood which nearly washed us all out. There was thunder and lightning and hail, and it rained nearly four inches in an hour. Things began to float away. I kicked my door open and jumped out in a foot of water and caught chairs and jugs and my steps and wired them to a tree.

All the campers were out saving their belongings and propping up their trailers. It was dark before we had everything safe. I am afraid it drowned our pets in their burrows as we do not see them now.

Folks who camp on the desert should never forget that these torrential desert storms may bring an unbelievable amount of water in a short time. They do not occur often, an interval of years may elapse, but sooner or later nearly every part of the desert is deluged by one of them. Then it is time to head for high ground.

ETRULIA PALMER

Handles 'em Bare-handed . . .

Yucaipa, California

Desert:

The article in your September issue under the heading "He Brands Snakes" was very interesting, but I have to disagree with Dr. Woodbury in one detail. I refer to the statement that rattlesnakes do not swallow their young.

This question was aired on the Letters page of *Desert Magazine* two years ago, and you published the letters from a number of observers who stated they actually had seen young snakes crawl into the mouth of their mother.

I have handled rattlesnakes for 60 years and have quite a den of them. I have seen a mother snake swallow seven of her youngsters—or perhaps I should say that she opened her mouth and the little ones crawled in.

Each spring I go to O'Keene, Oklahoma, where the International Association of Rattlesnake Hunters has its headquarters. We take the snakes alive, barehanded, and I frequently give demonstrations showing how the worst of them may be handled with the aid of an 18-inch piece of lath.

R. BARNUM

Those Pre-Civil War Camels . . .

North Ogden, Utah

Desert:

A commentator on the radio said that in Big Bend National Park in Texas there are some of the descendants of the camels brought to the United States for western transportation before the Civil War.

Desert Magazine says those camels are all gone. Who is right?

LELAND W. GIBSON

Desert Magazine isn't always right—but in this instance there is abundant evidence to bear out our statement that neither the pre-Civil War camels nor any of their progeny in U.S.A. are still living.

—R.H.

It Would Be a Drab World . . .

Seattle, Washington

Desert:

For quite some time I have been a "Just Between You and Me" addict. Riding with you through desert glories, reading your warm pleas in behalf of our neglected and sometimes abused Indian brothers, feasting upon your pictures of a better and finer life for all. But now alas our honeymoon is over. You tell me that I came from a long line of insignificant little one-celled creatures.

Many of us are not in the least disturbed to hear that our "ancestors had less brains than a black ant." We've suspected it all along. And we do feel insignificant. But a whole lot of folks over the country have been brought up to believe that their parents and grandparents away back to the beginning were created in His image. So naturally they think that they are a "child of the King" and really somebodies. And now you come along and propose that these innocent children be disillusioned. By stories of evolution in "every school in the land" you would have them convinced that they are the offspring of little one-celled black ants. Or perhaps descended from something even less dignified.

The trouble is I'm afraid that after our fellow citizens are once convinced that their ancestral background is truly ignominious and slimy, instead of taking some of the arrogance out of them as you seem to think, it may have just the opposite effect.

Psychiatrists say that people with inferiority complexes frequently, like our Adolph, develop into very bad boys. Or like some of us, just nobodies. Perhaps it would be better not to confront everyone with this evidence of their ignominious-one-celled-derivation, as you recommend in August's *Desert*.

Remember as kids how proud we were of our father and mother? We

thought that they were just about perfect. That was and still is a great ennobling feeling. I like to believe that all of my ancestors were created in His image. And that each of us has inherited His eternal qualities. Just between you and me, if this be arrogance let us make the most of it.

That was a challenging editorial. Thank you very much.

CHAUNCEY MINARD

Friend Chauncey:

Gosh, all I was trying to do was teach a little lesson in humility—and here you are putting me on the carpet for bad psychology.

In my years on the desert and traveling around the world I have learned so much about the religions of other tribes of humans that perhaps I do not revere the Bible's created-in-seven-days myth as much as I should.

But this world would be a very drab place in which to live without our Christianity—so perhaps there is considerable merit in what you say. It has always been my belief that it was better to have faith in the wrong things than to have no faith at all.—R.H.

THE *Desert* MAGAZINE CLOSE-UPS

Ann Ellis Scott, who has given *Desert* readers a glimpse of hogan life on the Navajo reservation in this issue, came west from a girls' finishing school in Nashville, Tennessee, in 1935 to take a civil service position with the Indian Bureau.

She remained on the reservation as a government employee until 1941 when she took a position as buyer for a curio store in the southern part of New Mexico. She divides her time between Santa Fe, Jemez and other localities in New Mexico, and keeps in touch with her Navajo friends.

Miss Scott has sold feature stories about her life among the Indians to several publications, including *New Mexico Magazine*.

Al Haworth, associate editor of *Desert*, with his wife, Dorothy, were among the several hundred visitors who took part in the great field day program arranged by the Clark County (Nevada) Gem Collectors early in October. Most of those who attended the event camped overnight preceding the field trip on the beach of Lake Mead. Al is writing the story of this unusual field day for the January issue of *Desert*.

Hard Rock Shorty of Death Valley



Some dudes were camped near Badwater, as Hard Rock Shorty came along the road leading his burro.

"Better come over and have a cup of coffee," one of them shouted.

"Don't mind if I do," answered Shorty and he gave the burro a prod and headed over to the campfire.

"Must be a healthy place here," said one of the men by way of opening up the conversation.

"Ain't none healthier on earth," Shorty assured him. "Nobody ever dies around here. They's some of 'em around here that oughta been dead long ago."

"Take ol' Chuckawaller Charley, fer instance. He has the quicksilver mine up in Chuckawaller wash. They named that canyon fer him. He's been around here so long he's the same color as them brown rocks over in the Panamints."

"Long time ago Chuckawaller found a good pocket o' gold and decided he wanted to see the fair in San Francisco. Back in '14. He went up there, but he didn't last long. That cold air got 'im, an' they took 'im to the hospital. Charley was afraid he wuz gonna die, and he gave the nurse a bag o' gold an' told 'er to have his remains sent back to Death Valley."

"An' sure enough he did die. They boxed up the body an' shipped it to Las Vegas and sent word to Pisgah Bill an' me. We hired a freight wagon to go over an' pick 'im up."

"The freighter got 'im back as far as Death Valley Junction, when the end-board slipped outta the wagon and the casket fell off an' the lid popped up an' a blast o' desert air hit Chuckawaller."

"The driver heard the crash and turned around just in time to see Chuckawaller jump outta the box an' head off across the hills toward his ol' mine. Powerful stuff, this desert air!"

HERE AND THERE... on the Desert

ARIZONA

Uranium Hunt Brings River Thrills

HORSESHOE DAM—Seeking both uranium ore and new fishing grounds, four adventuresome modern-day prospectors recently completed a hazardous voyage down the turbulent Verde River canyon, one of the nation's roughest and most isolated streams—a trip that even the hardy gold seekers of 100 years ago never dared.

The four men fought their way through rapids and rushing water in rubber rafts for 100 miles down the canyon. In the party were Allen C. Reed, 34, photographer and amateur geologist, Phoenix; Herman Womack, 52, Prescott; Al Owsle, 35, Ft. Whipple; Carl Eldridge, 30, Ft. Whipple. It was first time the full canyon trip had been made successfully. The men traveled by day, camped on sandbars at night. They say they found "likely-looking" uranium samples. — *Tucson Citizen*.

How Do They Do It?

FLAGSTAFF—"I have seen many Navajo fire dancers, but I have never found evidence of any burns suffered by the dancers, not even a blister." This is the testimony of Cecil Richardson, Coconino County deputy sheriff, writer, former Indian trader and a long-time keen student of Navajo ceremonials.

Indians have told him that "if you believe you will not be burned, you will not be burned." There have been cases, Richardson has been told, when new members of the fire dancing clan were burned because they did not believe and were frightened. Those who suffer burns are not permitted to stay in the clan.

Navajo ceremonials have changed some down through the years, according to Richardson, but many of the rites still retain features used hundreds of years ago. Music of the Navajos, he says, has come down from early times almost unchanged. Frequently words are chanted that no longer have any meaning to present-day tribesmen, but the words are memorized religiously from generation to generation. — *Coconino Sun*.

Too Many Quail—New Complaint

YUMA—A situation that will surprise most people has arisen in Yuma Valley. The State Game and Fish Commission has been asked by farmers of the irrigated desert area to set up a limited quail hunt for Yuma County as a means of reducing crop damage by quail. — *Yuma Sun*.

Indians Are Good Cattlemen . . .

WASHINGTON—Indians of this country have made remarkable progress in the cattle industry, according to Indian Commissioner Dillon S. Myer, and an outstanding example of this progress can be seen today on the San Carlos Apache reservation in Arizona. The Apaches have made their reservation into one of Arizona's largest cattle ranches, their herds are among the finest in the country. The young braves are active members of 4-H clubs and have their own cattle.

Today 700 Apache families own 26,000 head of cattle. Many young war veterans of World War II have come back to the reservation to go into the cattle business. The Papagos in Arizona as well as the Mescalero Apaches and many pueblo Indians in New Mexico are also developing fine cattle herds.

Arizona's Growth Rapid . . .

TUCSON—Arizona, combining a variety of climates with agriculture, industry, cattle, mining and the tourist business, was the second fastest growing state during the past decade. Arizona boasts a 49.3 percent population gain between 1940 and 1950, was exceeded only by California's 51.6 percent. Arizona's 1950 population is 745,259 — it still retains vast open spaces of both desert and timbered mountains where lovers of the outdoors may escape from the tensions of metropolitan life. — *Tucson Citizen*.

All over the Southwest the story is the same — record travel figures to National Parks and National Monuments. Grand Canyon National Park is no exception. Supt. H. C. Bryant reports an increase of 8 percent over the 1948-49 figures, with the number of visitors jumping from 605,331 to 654,348 in 1949-50.



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HIGHWAY MOTEL: 4 units with kitchens, only \$17,500. Carl Henderson, Pioneer Realtor, Box 201, Palm Desert, California.

Bandoleros Start Desert Trips . . .

YUMA — The Yuma Bandoleros (desert wanderers) have begun their series of trips to little-known points of interest in this section of the desert. Following a November trip to Morelos dam, below the international boundary in Mexico, the unique organization has scheduled a December 3 trek to Tinajas Altas (Desert, Sept., 1949), famed early-day watering place on the Camino del Diablo.

Jointly sponsored by the Yuma department of parks and recreation and the Yuma County chamber of commerce, the monthly tours are highlights of the winter season. Three major outings are planned after first of the year. No guns or intoxicating liquors are permitted on any of the trips.—Yuma Daily Sun.

Navajo Allegiance Reaffirmed . . .

WINDOW ROCK — To forestall any misunderstanding which might result from a recent request of Hopi tribal leaders asking exemption for their young men from the Selective Service Act, the Navajo Indian tribal council has passed and made public a resolution which sets forth, among other things, these points:

The Navajo are citizens of the United States and wish to accept their full share of responsibilities involved. They stand ready to place their material resources and manpower at disposal of their country. But, the resolution points out, the tribesmen believe they are entitled to equal opportunities as citizens and that their young men who go into the armed services are entitled to equal benefits as veterans.—Gallup Independent.

Park Service Funds Slashed . . .

WASHINGTON — When congress directed that \$700,000 be cut off the Park Service appropriation for building and utilities, expansion of visitor accommodations was slowed up a full year at many western parks, it is claimed. Lodgings and most other services for visitors are built by private firms which hold concession privileges, but the government must meet the cost of water and sewer lines and other utilities. If there is no money for these, major new construction of facilities must wait.

With the number of park visitors increasing every year, there are few parks which do not need extensive construction or lodgings, it is claimed.—Tucson Citizen.

Havasupai Pass Schooling Law . . .

SUPAI CANYON—The Havasupai Indians, one of the smallest and most isolated of tribes, have taken formal cognizance of the importance of health and education. A recent tribal ordin-

ance requires compulsory school attendance for children up to 17 and regular medical examinations for the approximately 200 members of the tribe.

The Havasupai live on a reservation at the bottom of Supai Canyon, at the point where Havasu Creek drops over three spectacular falls of dazzling beauty into the Colorado River. Their unique and colorful home is near bottom of the Grand Canyon, is called the land of the sky-blue water. A 14-mile horseback trail leads to the reservation.

Grasshopper Control Progresses . . .

WASHINGTON—The lowly grasshopper—one of the most voracious insect threats to western crops and ranges—had a difficult time of it this past growing season. The hoppers just about ate themselves to death. But it was the dressing on their food, rather than the amount of vegetation consumed, that did them in.

Both poison spray and poisoned bait were used this year, and Dr. W. W. Popham, agriculture department entomologist who directed the campaign, estimates the acreage treated was double that of the previous year. The 1949 acreage itself was a record. Farmers themselves aided greatly this year by using recommended poisons on their own crops and lands. It was found that very little treatment was required this year on areas previously worked.—*Tucson Citizen*.

Hopi Women in Politics . . .

ORAIBI — Politics, white man's style, has invaded the peaceful Hopi villages perched atop arid mesas in the heart of Arizona's desert. Hopi Indian women have banded together in the first two women's Republican clubs on an Indian reservation in Arizona. One of the clubs, headed by Lillian Yestewa, is located in the ancient village of Oraibi, the other is at Walpi, with Norma Nayatewa as president.—*Coconino Sun*.

Reviving Old-Time Desserts . . .

HOLBROOK — Rediscovery of some of the desert fruits used by Indians before the white men invaded their Southwest is launching a small industry for a Phoenix couple. Mr. and Mrs. James J. Cahill, former New Yorkers, have started making commercial jelly from the "apples" of the prickly pear cactus and are selling it to stores, restaurants, hotels, resorts and clubs. Oldtime residents of Navajo County recall that jams and jellies from this fruit were common fare in the early days. The Cahills say they plan to rediscover other desert fruits which the Indians used.—*Holbrook Tribune-News*.

CALIFORNIA

Cement Plant Fight Renewed . . .

PALM SPRINGS—After nearly a year of silence, Samuel Guiberson, Jr., Texas oil millionaire and would-be cement manufacturer, has apparently renewed his fight to establish a cement plant near the desert winter resort area of Palm Springs. He recently filed charges in a Washington, D. C. federal court alleging that a conspiracy exists between Jess Larson, general services administrator, and the Ideal Cement Company of Denver to keep him from building his controversial cement plant.

Guiberson fought earlier rounds with angry Palm Springs resort interests before the federal district court in Los Angeles, the Riverside County Planning Commission and the county supervisors.—*San Bernardino Sun*.

Oasis Will Become Park . . .

TWENTYNINE PALMS — Seventeen graceful palms and the Oasis of Maru around which they grow have been presented by the Twentynine Palms Corporation to the National Park Service to be preserved and beautified as main entrance to Joshua Tree National Monument. The 17 native Washingtonia palms are the only large palms that remain of the original 29 for which the desert community was named.

Construction of a desert museum is planned to display artifacts of the prehistoric Indians who lived in the region, along with examples of the cul-

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Palm Desert, California

ture of Indians who lived in the area when white men first saw it.—*The Desert Trail.*

To Straighten 'Ol Man River . . .

BLYTHE—Continuing its program to put the Colorado river between Needles and Yuma in a "straight-jacket," the U. S. Bureau of Reclamation has opened an office here to make preliminary surveys for re-channelizing the stream in the Cibola Valley sector. Eventually the big dredge now being used to straighten the channel at Needles may be brought down river to work at this point. — *Palo Verde Times.*

Wild Burros to Be Saved . . .

BARSTOW — Wild burros which roam in the Death Valley National Monument and over other remote desert hill areas, including the Lake Mead National Recreational Area, will not be eliminated. Assurance of this came in a letter from Conrad Wirth, assistant director of the department of interior, to Mr. and Mrs. Charles E. Moore, Daggett.

The Moores had written about reports that the hardy burros were to be killed off because they allegedly interfere with the mountain sheep, and they urged creation of a refuge for the burros themselves. Wirth answered: "You may be assured that the burros will not be eliminated from those areas before creation of the asylum which you mentioned." — *Barstow Printer-Review.*

Banning-Idyllwild Hiway Dedicated

BANNING—The Banning-Idyllwild highway, which opens up a beautiful part of the San Jacinto Mountains bordering the Colorado desert, was dedicated at public ceremonies in both communities this fall.—*Banning Record.*

Desert Air Force Experiments . . .

THERMAL — The United States Air Forces are again turning to the desert when they want to conduct secret experiments. National defense experiments of an undisclosed nature are to be conducted from the Thermal and Blythe air bases under a program authorized by the U. S. Air Force Special Weapons Command. The experiments have something to do with radar, will include no flying, it is believed.—*Indio Date Palm.*

During the travel year which ended September 30, a total of 20,035 cars carrying an estimated 76,178 visitors entered Joshua Tree National Monument. Of this number nearly 4000 were campers. The travel figures represent an increase of 11 percent over the previous year.—*The Desert Trail.*

Use of Canal Water Aids Wells . . .

INDIO — Use of Colorado River water for irrigation has relieved the drain on Coachella Valley wells, and as more and more lands are served with water from the Coachella branch of the All-American canal the valley's underground water table should rise even more, according to General Manager J. H. Snyder of the Coachella Valley County Water District.

The Coachella branch canal takes off from the main All-American just east of the irrigated area of Imperial Valley, circles to the north of Salton Sea to reach Coachella Valley. Its completion came just in time to relieve what would soon have developed into a critical water shortage as annual draw-down on wells was rapidly lowering the underground water level. Tests completed this fall showed an average rise of 1.85 feet in wells at different points in the valley. The irrigated area of Coachella Valley is under intensive cultivation, including dates, citrus, truck crops, cotton and field crops.—*Indio Date Palm*.

NEVADA

Few Piñon Nuts—Mild Winter . . .

FALLON—It is an old saying of the Indians that if the crop of piñon nuts is small, the winter will be mild, and conversely, "many piñon nuts, hard winter." If these signs can be believed, Nevada should have a mild winter.

The fall piñon nut season is a happy one for the Indians, when they go out into the hills for the annual harvest. This year the nuts were scarce, according to reports from Indians who always bring their supply in to the Kolhoss grocery which for many years has bought all piñon nuts brought in. Price this year was 70 cents a pound.

The piñon pine is a hardy native, can thrive where its conifer relations die. It is accustomed to drouth, fires and storms, has for generations survived all of them. The nuts are not abundant every year, since it takes three years for them to mature.

According to forest rangers in the Plumas National Forest, the pine seed crop there is a failure too. The squirrels are in for a hard winter. They will have to be satisfied with a winter diet of acorns, and according to the rangers acorns are considered a low class of food by self-respecting squirrels.—*Fallon Standard*.

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Rare Fossil Gives Information . . .

TONOPAH—A University of Nevada student—James B. Scott—who found a fossil preserved in a 6-inch piece of red quartzite while on a geology field trip, may provide the key which will enable scientists to establish the exact geological age of rock units in the Contact mining district north of Elko.

Scott's find is a helicoprian. It is one of only 15 or 20 of its kind found in the world. The first was discovered in Russia in 1899. Scott's specimen occurred in association with fusulinids, contact specimens whose geologic age is definitely known. Finding the two in conjunction places Elko County in the middle third of the Permian period—the last part of the Paleozoic era—scientists say. This is about 200 million years ago.—*Times-Bonanza*.

An exhibit of coins made in the Carson City mint when it was in operation between 1874 and 1897 was displayed by the state museum at Carson City during the Nevada Day celebration in October. Nevada residents donated Carson mint coins for the display.

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Indians Happy Over Decision . . .

WASHINGTON — E. Reeseman Fryer, the man who is credited with defending and protecting the Nevada Paiutes on the Pyramid Lake reservation against efforts to take from them

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THE Desert MAGAZINE
PALM DESERT, CALIFORNIA

lands on which whites had squatted, will remain as superintendent of the Nevada reservation. Fryer had been ordered by Indian Commissioner Dillon S. Myer to transfer from the Carson Indian agency to the Colville Indian agency in Washington. The order to transfer Fryer was halted by President Truman.

The National Congress of American Indians as well as Indians on the Nevada reservation were gratified at retention of Fryer as Pyramid Lake superintendent.

• • •

Nevada Inhabited First . . .

BATTLE MOUNTAIN—Men inhabited Nevada 10,000 years ago, soon after the glaciers receded, and were the first humans in North America, according to an "atomic calendar" evolved by a team of Chicago scientists and disclosed at recent meeting of the National Academy of Sciences. Oregon, the scientists claim, shared the honor with Nevada.

The calendar is based upon a study of radioactive carbon which can be dated. Dr. Willard F. Libby, University of Chicago, headed the group that prepared the calendar. He said it shows that man did not live on the east coast until about 5000 years ago. Libby says the last ice age in the Middle West was 12,000 years ago, rather than 20,000 years ago as is generally estimated by geologists. —*Battle Mountain Scout*.

• • •

Wildfowl Flock to Refuge . . .

FALLON — There were approximately 48,000 waterfowl on the Stillwater Wildlife Management Area when a census was taken in October, according to the U. S. Fish and Wildlife Service. Of the ducks on the area, about 70 percent were Widgeon and Pintail. There were about 1000 wild geese counted. —*Fallon Standard*.

• • •

Sheep Industry Declining . . .

TONOPAH — Continuing a trend that began in 1942, Nevada's lamb crop declined again this year despite the fact that lambing practices were better this year and good weather helped save a higher percentage of lambs. Only 355,000 breeding ewes were reported in Nevada this year, as compared with the 10-year average of 510,000. —*Times-Bonanza*.

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NEW MEXICO

"Witch" Plagues Zuni Pueblo . . .

GALLUP — A four-month drouth and death of the governor's wife are beyond question the work of an evil witch who has been at large in the Zuni Indian pueblo 40 miles south of Gallup. Confirming this belief of the Zuni people, a delegation from Jemez pueblo to the north visited Zuni and after an investigation announced definitely that a witch was at bottom of the trouble. Death of Mrs. Leopoldo Eriacho, 66, wife of the Zuni governor, added to other evidence gave them all the proof they needed. White doctors at Fort Defiance, where Mrs. Eriacho died despite elaborate ceremonies the day before, attributed her death to complications from a hernia, but then the white doctors didn't know about the witch.

The Zunis no longer kill witches when they have been identified. They drive them from the pueblo into the haunts of the white man. —*Gallup Independent*.

• • •

Carson National Forest Larger . . .

TAOS — The tracts of land comprising the Leroux Grant have been acquired by the government and taken into Carson National Forest, Supervisor L. F. Cottam has announced. The new area contains considerable timber in the high country, but its chief value, Cottam says, is its watershed and recreation values. Most of the Rio Hondo is now in public ownership and will be open to the public. Lake Williams, popular fishing lake, is also included in the new area. More than 17,000 acres of land in the Hondo and Arroyo Seco valleys are irrigated with water from the Leroux Grant. —*El Crepusculo*.

• • •

Want More Water for Navajos . . .

SHIPROCK — Representatives of communities on and adjacent to the Navajo reservation have formed the Four Corners Navajo Water association for the two-fold purpose of analyzing water needs of the Navajo people and working to obtain full allocation of San Juan River waters for lands on the reservation and adjacent to it.

Communities participating in formation of the new organization were: Cortez and Durango, Colorado; Bloomfield, Farmington, Shiprock and Gallup, New Mexico; and representatives of the Franciscan Fathers, Christian Reform missionaries, Navajo Returned Students association and Navajo Methodist mission. Principal object of the group is to obtain all of the waters of the San Juan River for Indian irrigation projects along the San Juan which can be justified. —*Gallup Independent*.

Uranium Deposits on Reservation . . .

AZTEC—The poverty-stricken and drouth-ridden Navajo Indians of New Mexico and Arizona may share in a new source of wealth from uranium ore deposits discovered on their arid reservation. Jesse C. Johnson, manager of raw materials operations for the Atomic Energy Commission, has described the deposits as "one of the most important" carnotite discoveries on the Colorado plateau in the last 20 years. There are plans for a processing plant near Shiprock, New Mexico. Officials of the Indian bureau said the Navajos will benefit both individually and as a tribe if carnotite production is started.—*Aztec Independent-Review*.

UTAH

Historic Bridge to Be Rebuilt . . .

VERNAL—After years of shaky but faithful service, the famed suspension bridge across the Green River in the area of Brown's Park finally broke down in a high windstorm last summer, but various state and government agencies will see to it that the bridge is replaced.

The 100-yard-long bridge saved a 100-mile journey for ranchers, cattlemen, sportsmen and state and federal game and forest officials wishing to make the trip from the Uintah basin to Daggett County in the area of Brown's Park, Clay basin and the Glade.

The old bridge was constructed by Stanley Crouse years ago, hung about 60 feet above the water and was just wide enough for one car. The structure would swing back and forth several feet in the wind, and it took real nerve to drive over it while it was swaying upstream and down. Boards lying on the heavy cables were only loosely wired down, would ruffle up in front of the car wheels as a machine drove across. The piles that supported the upper cables were made of cottonwood.

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Vernal over Diamond Mountain and through the scenic grandeur of Crouse Canyon is rich in western history.—*Vernal Express*.

Southern Utah Tourist Peak . . .

CEDAR CITY—A high mark in tourist travel through Zion and Bryce Canyon National Parks was recorded during the past summer when a total of 529,653 persons went through the two parks. The figure exceeds by 25,810 the total for last year's tourist season. The travel year ends September 30. The figure for Zion was 320,994, for Bryce, 208,659. California sent the greatest number of visitors.—*Iron County Record*.

Hunt Cuts Deer Population . . .

MOAB—An estimated 75 percent of the hunters who held permits for the special deer hunts on the La Sal Mountains and on Elk Ridge in San Juan County came home with venison. There were 600 special permits issued for the La Sal region and 2000 for Elk Ridge, which means that nearly 2000 deer were slain in the special hunt which continued through the regular deer season—up to November 7. Purpose of the permits was to reduce the deer population.—*Times-Independent*.

Trout Planted for Ute Indians . . .

VERNAL—More than 3500 native trout and 5000 rainbow trout have been planted on the Uintah and Ouray Indian reservation in beaver ponds and side channels of Rock Creek and the Lakefork, Yellowstone, Uintah and Whiterock rivers. Planting was done in spots not usually accessible to fish-planting trucks.—*Vernal Express*.

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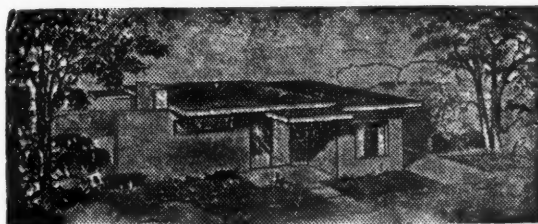
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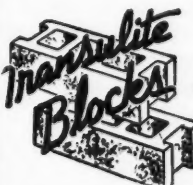
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MINES AND MINING . . .

Bishop, California . . .

The old Rossi tungsten mine near Bishop has been taken over by Frank Phillips and James Birchim who are retimbering the mine preparatory to resumption of production. The Rossi is worked through an inclined two-compartment shaft. The mine contains soft scheelite ore.

Indications are that tungsten mining is regaining its war-time importance in Inyo County, California's principal producer of the vital strategic metal. Producers are reported receiving about \$28 per unit for scheelite ore averaging 60 percent tungsten. Demand has been accelerated by stoppage of imports from China, by the U. S. rearmament program and increased steel production. Active tungsten mines in the Bishop region include the Pine Creek property of the U. S. Vanadium Corporation and the Yaney mine, operated by R. W. Adams and B. W. Van Voorhis.—*Inyo Register*.

San Francisco, California . . .

The *California Journal of Mines and Geology*, Vol. 46, No. 4, is ready for distribution, according to Olaf P. Jenkins, chief of the California division of mines. Price for this issue of the *Journal* is \$1.00 per copy, paper bound. Address of the division of mines is: Ferry Building, San Francisco 11, California.

Another publication, Bulletin 156, *Mineral Commodities of California—Geologic Occurrence, Economic Development, and Utilization of the State's Mineral Resources*, with a map showing the general distribution of mineral deposits, is also available now. The cloth-bound bulletin may be purchased for \$2.00.

Eureka, Nevada . . .

The famous Cortez silver mine, discovered in 1863 by Mexican prospectors and credited with producing more than \$16,000,000 in silver during the many years it was operated on a major scale, has been leased by McFarland & Hullinger, Utah mine operators, and operations on a substantial scale are projected.

The mine is about 35 miles south of Beowawe. It has been developed to a vertical depth of 1700 feet, and the property is said to contain considerable ore carrying silver, lead and zinc. It is equipped with a flotation mill designed to treat 200 tons of ore daily. The property covers 44 claims with extensive virgin areas available for future exploration. — *Los Angeles Times*.

Las Vegas, Nevada . . .

A deposit of tremolite asbestos is being developed by W. S. Beall of Las Vegas in the Guienas Canyon district eight miles southeast of the Elk Mountain mining district, west of Las Vegas. Beall has developed tremolite showings over a width of at least 15 feet and a strike length of several hundred feet.

Spiraling demand for asbestos has stimulated an aggressive search for the elusive mineral, particularly in California. Asbestos has been produced and sold intermittently in California in small quantities since 1882. At one time or another 15 counties have reported asbestos production and 17 have reported occurrences of the mineral, but there has been no consistent production in the state.—*The Mining Record*.

Ely, Nevada . . .

Kimberly is making a strong comeback as an important Nevada mining town. Reason is the launching of open pit copper mining, and the town — which went into a slump a year ago when underground copper production was abandoned — has prospered since Consolidated Coppermines Corporation engaged Isbell Construction Company for the open pit project early this past summer. Nearly 150 men were working three eight-hour shifts on the open pit job last month. The contract with Isbell calls for mining 3,000,000 tons of ore over a three-year period. The ore and overburden which must be removed is being handled with two big power shovels, four carryalls and twelve 15-ton trucks.—*Ely Record*.

Winnemucca, Nevada . . .

Discovery of a rich deposit of manganese, said to cover approximately 10 miles in Pershing county, has been reported by Bill Parsons, prospector. His discovery is in the Tobin range west of Buffalo Valley. Parsons said the ore assays 55 percent. Manganese ore is essential in the steel industry, the Soviet Union has been chief U. S. supplier.—*Humboldt Star*.

Winnemucca, Nevada . . .

A bulldozer was being used to uncover outcrops as exploration work was renewed recently at the famed National Gold mine north of Paradise Valley. Float typical of the National mine and assaying up to \$100 a pound has reportedly been found, and the operators are searching for the mineral source.—*Humboldt Star*.

Delta, Utah . . .

Operations have started at one of the few gold placer properties in Utah. The newly incorporated Queen of Hills Mining Company has begun placering in the House Mountain range 45 miles southwest of Delta. The company's claims cover about 400 acres in a gulch where gold, tungsten, titanium, tellurium, thallium and thorium are found. Gas-powered machinery is being used, as no electricity is available. The operators say that if they run out of gold-bearing gravel, there is enough tungsten in the region to warrant a good-sized operation.—*The Mining Record*.

Beatty, Nevada . . .

A major mining operation may be in the making at Chloride Cliffs, south of Beatty, according to Henry Fisher and Mac McPhearson who are leasing the property. Development work has been in progress in the face of a tunnel following a vein of lead-gold ore varying in width from two to three feet. Sample shipments have returned "encouraging assays." Mining operations have been tried at Chloride Cliffs in the past, but this is the first attempt to develop the ground by modern methods and with a full crew of men. Values are found in the contact zone between lime and schist, according to the operators. A good road has been completed to site of the work.—*Beatty Bulletin*.

Washington, D. C. . . .

Following earlier reports that the plant might be located elsewhere, the Bureau of Mines has announced plans for building a \$600,000 pilot plant for development of low-grade manganese at its Boulder City, Nevada, experiment station. Funds for the 50-ton-a-day experimental plant have been provided in a supplemental appropriation bill.

Most of the high-grade manganese ore now used in the manufacture of steel is imported. Purpose of the new plant is to pave the way for utilization of large domestic deposits of low-grade ore.—*Associated Press*.

Calico, California . . .

Reopening of old Alvord mine — first opened in 1885 — has resulted from a new gold strike of ore averaging from \$50 to \$100 a ton, according to reports. The old Alvord is in the Alvord range east of the Calico Mountains. The discovery is below the former workings. First portion of the strike was in hematite iron but the gold is said to occur also in calcite and limestone. The old mine was worked intermittently from 1885 to 1920. Present operator is Roy Waughel, who has the property under lease.—*San Bernardino Sun*.

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Gems and Minerals

ROADS INTO BULLIONS WASHED OUT BY RAINS

Five jeeps led by the *Paisano*, desert-wise vehicle owned by Mr. and Mrs. Loran E. Perry, Pasadena, recently broke road into the Bullion Mountains northwest of Twentynine Palms, California, and discovered that rains had washed out the regular roads into that area (*Desert*, Aug. 1950).

Loran writes: "We discourage anyone without a jeep or plenty of manpower from tackling the sand traps beyond Deadman's Dry Lake. The Ludlow entrance to the Bullions is impassable to stock cars." The Bullions are good collecting country for the more adventuresome rockhounds.

UNIQUE METHOD FOR KEEPING MEMBERS ACTIVE

There is no such a thing as an inactive member of the San Diego Lapidary society. The organization has this rule: to keep membership in good standing, each member must display five pieces of current lapidary work, attend at least one field trip and one meeting. If these requirements are not met, the person must make application for membership when a new year begins.

Election of officers for the society's new year was scheduled for the November 8 meeting, with installation of officers to be November 22. Meetings of the Lapidary society are held every second and fourth Wednesday of each month in the old chamber of commerce building in Old Town, 3960 Mason Street, San Diego, California.

Annual hobby show sponsored by the Searles Lake Gem and Mineral society, Trona, California, was held November 18 and 19 at the Trona high school auditorium. Both collectors and handicraft hobbyists exhibited in three divisions. Interest of many of the Searles Lake society is now centering around the new lapidary hut which the club has built and equipped with modern lapidary equipment.

Chrysocolla comes from two Greek words meaning "golden glue," according to the Hollywood Lapidary society's bulletin. Chrysocolla or a mineral resembling it was believed to have been used by jewelers of ancient times to solder gold.

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COLORADO MINERAL SOCIETY BEGINS ITS 15th YEAR

The October 6 meeting of the Colorado Mineral society, Denver, marked the beginning for the 15th year of the organization — established to promote the study of minerals and other geologic materials, to encourage mineral collecting as a hobby, to conduct public meetings and lectures and field trips. The society meets the first Friday of each month from October through May at the Colorado Museum of Natural History, Denver city park. Summer field trips are sponsored.

During the past summer eight field trips were conducted, with from 32 to 64 members participating. An active year is ahead under the leadership of Harold T. Hofer, new president.

Three interesting meetings were enjoyed by members of the Tucson Gem and Mineral society as the fall activities opened. September 5 members told of their summer field trips and displayed specimens collected. On September 19 iron minerals were discussed and exhibited, while on October 3 lead and zeolite mineral specimens were shown and discussed. The society meets the first and third Tuesdays of each month in room 106 of the Arizona State Museum on the University of Arizona campus, Tucson.

Thirteenth annual mineral and gem show of the San Diego Mineral and Gem society, Inc., was open to the public October 14 and 15 in Recital hall, Palisades building, Balboa Park. There was no admission charge and gratifying crowds turned out to view the displays.

The word garnet is derived from the Latin word for pomegranate, and the gem stone was so named because of its resemblance to seeds of the pomegranate.

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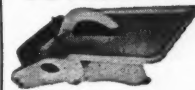
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AMONG THE ROCK HUNTERS

NEW JADE OCCURRENCE IN CALIFORNIA REPORTED

Jadeite and nephrite jade recently were found associated together in stream boulders from the North Fork of the Eel River, Trinity County, according to the Mineral Information Service of the California division of mines. The find was made by geologists of a major oil company and confirmed by members of the State division of mines and California Academy of Sciences.

The jadeite is light mottled green and gray and does not resemble the San Benito County material reported a few months ago as the first jadeite find in California. The associated nephrite is dark green. Boulders of jasper and crocidolite are found with the jade and are from the same source rocks. None of the material has been found in place.

GEOLOGY SOCIETY BEING FORMED AT PALO ALTO

Charter memberships in the Palo Alto Geological society, now in the process of being organized, will be open until February 1, 1951, it is announced. Main requirement for joining is an active interest in general geology and "rocks for rocks' sake." Stress will not be laid on lapidary work, it is stated.

One field trip has already been made. That was one led by Oliver E. Bowen, California division of mines, to study the geology of the southern Mother Lode country and Yosemite Valley, and to gather rock specimens. While on the top of Sentinel Dome in the park, several new members signed up. Regular monthly meetings of the society will include lectures, movies and field trips.

William C. Holding, 19 Campobello, Menlo Park, is president.

ANSWERS TO QUIZ

Questions are on page 22.

- 1—False. A rattlesnake has no inhibitions regarding horsehair ropes.
- 2—False. Mistletoe never grows on the Joshua tree.
- 3—False. The Kachinas are Hopi gods.
- 4—True.
- 5—False. Humboldt River empties into Humboldt Sink.
- 6—True.
- 7—True.
- 8—True.
- 9—False. The shore line of Lake Mead is in Nevada and Arizona.
- 10—True.
- 11—True.
- 12—False. Date trees in the desert were originally imported from Asia and Africa by Americans.
- 13—False. Winnemucca was a Paiute chief.
- 14—True.
- 15—False. The black mineral in quartz generally is hornblende.
- 16—True.
- 17—False. Piki is made from corn.
- 18—False. Cedar Breaks is a National Monument.
- 19—True.
- 20—True.

SOCIETY AFFILIATES WITH NEW LAPIDARY ASSOCIATION

A travelog illustrated by colored slides, presented by Prof. W. R. B. Osterholt of Santa Monica City college, geology teacher, and photography by David Frazer, member of the field trip party, featured the October meeting of Santa Monica Gemological society. Grand Canyon and several mining areas in Arizona were included in the itinerary.

By a close margin the society voted to affiliate with the new Southern California Lapidary association. Time of starting meetings was changed from 8:00 p.m. to 7:30 p.m. A large collection of cabochons, including a new discovery of agate of several solid colors which has been named California Wonder Agate, was displayed by Ed Lang, a former member. Guest Ernie J. Lagle told how, with no past experience, he had in a few weeks and at a cost of less than \$60 assembled a lapidary outfit and mastered the art of polishing tiger eye, displaying a frame of cabochons.

A 10-year subscription to *Desert Magazine* has been presented as a gift to the Santa Monica Gemological society by Mrs. C. J. McCormik, Pasadena, California. She is a sister of Mrs. William G. Russel, society member. The Santa Monica society is an active one, numbers enthusiastic collectors and lapidaries among its members. October field trip was an overnight trek to the colorful jasper deposit at Castle Butte, about 15 miles east of Mojave.

The Orange Belt Mineralogical society began a new club year at the October meeting and made plans for the society's annual Gem and Mineral show November 4 and 5 in the industrial building of the Orange Show, San Bernardino, California. The society meets regularly the first Tuesday of each month at San Bernardino Valley college. First of the winter's series of lectures was an illustrated talk on Strategic Minerals by R. J. Harriss.

Kenneth F. McKenzie, Fellow of the Gemological Society of Great Britain and a qualified appraiser of gem stones, spoke at the September meeting of the Pacific Mineral society of Los Angeles. He exhibited a fine collection of cut stones, including diamond bracelets, one with 36 carats of perfectly matched stones. Dr. Foster, display chairman, exhibited an outstanding collection of native copper from Michigan.

"OVERLOOKED FORTUNES!" In the Rarer Minerals

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Members of the San Geronio Mineral and Gem society, Banning, California, turned their October 18 meeting into a work meeting in preparation for the society's first big show the weekend of October 21 and 22. Gathering at the Cherry Festival building between Banning and Beaumont, men and women members pitched in with brooms, rakes, hammers, saws and dust cloths to get the place ready for the big show. General chairman of the show was Jim Adrian. With the successful show out of the way, society members are arranging a series of field trips to the desert for the winter months.

San Fernando Valley Mineral & Gem Society members had an opportunity to see and hear about the art of the Chinese lapidary when Chang Wen-ti, noted jade carver, spoke on "Chinese Jade Carving" at their October meeting. He told of methods that have served them, almost unchanged, from ancient times to the present. He illustrated his talk with finished and unfinished pieces of his work. J. L. Thomas displayed rough jade in various colors from many locations. Mrs. Thomas showed jade jewelry, antique snuff-bottles and small carved objects in agate, coral and jade, which were collected in China years ago.

Biggest fall event for the Tacoma, Washington, Agate club was the annual birthday party held November 2 at Fruitland Grange hall. But earlier in the season 124 rock and Indian artifact enthusiasts gathered for an Autumn Pow Wow at the Moseley ranch near Sunnyside September 30 and October 1. The ranch has some of the best petrified wood diggings in the Northwest.

Reports on the two-day mass field trip in the Black Hills near Hoover dam took up most of the time at October meeting of the Fallon, Nevada, Rock and Gem club. Several Fallon rockhounds attended.

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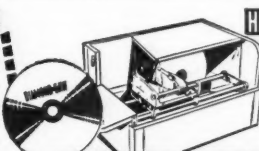
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Calcite, aragonite and various copper minerals were collected by members of the Mineralogical Society of Phoenix, Arizona, on their October field trip to Silver Hill mine. The society is now operating under the leadership of M. J. Benham, elected president at the annual business meeting in May. Informal meetings were held during the summer, with regular meetings being resumed in October. The society meets the first and third Fridays in the assembly hall at 1738 West Van Buren street, Phoenix.

Members of the Los Angeles Lapidary society and their friends went to Rancho Piedras in Apple Valley on the weekend of October 13-15 for the society's annual picnic. Ted Schroeder was picnic chairman. Field trips, contests and swimming filled the days, and there was a campfire get-together Saturday night. Rockhounds visiting Los Angeles are invited to the society's regular meetings the first Monday of each month at the new Van Ness playground, corner of Slauson avenue and Second avenue, Los Angeles, California.

The new Scintillometer, a portable gamma ray detector employing the scintillation principle, was demonstrated at a recent meeting of the Whittier, California, Gem and Mineral society by Walt Bilicke of Engineers' Syndicate, Hollywood. He talked on uranium minerals and methods of detection and location. He explained that the Scintillometer registers nearly all gamma rays that penetrate it, whereas the Geiger counter detects less than 1 percent of all gamma rays that strike it. Geiger counters are sensitive to beta rays which are less penetrating and to only a small percentage of gamma rays.

Exhibits which ranged from mineral specimens to beautiful cabochons and artful jewelry made successful the first show to be put on by the South Bay Lapidary society, Hermosa Beach, California. Mrs. Jane Hagar is president. At the society's October meeting Albert Hake, Los Angeles, showed micromounts and also some new color slides of plume agates and iris agate.

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VETERAN COLLECTOR WRITES OF EXPERIENCES IN FIELD

After 15 years of trekking over the California hills in quest of mineral specimens, Darold J. Henry of Pomona has published his experiences in a paper-bound volume titled *Gem Trail Journal*.

Written in the language of the rockhound, the book tells very candidly about the minerals he found—and failed to find—in scores of California localities. He also includes comment on roads and accommodations and other factors which enter into the life of a collector in the field.

In the foreword is some excellent advice to both novice and veteran collectors—advice pertaining to the ethics of camping in the outdoors.

Many rough map sketches are given, but unfortunately the engravings have been reduced to a size which makes the use of a reading glass almost necessary. The 69-page book is available from the author at 1781 Fleming street, Pomona, California. \$2.00.

Casting by the lost wax method—a method which is 2000 years old—was explained by Myor Wolfenson of the Micro Precision Company at a recent meeting of the Gem Cutter's Guild, Los Angeles. Casting, he said, is not difficult. A wax pattern is essential, and gold, silver, copper, steel or aluminum may be used. Originality and ambition are principal requirements for making jewelry, Wolfenson declared.

A talk on some of the minerals of Arizona was the big attraction of the monthly meeting of the Yavapai Gem and Mineral Society held Tuesday, October 3, in the parish house of St. Luke's Church, Prescott, Arizona. E. E. Michael presided in the absence on vacation of President Roy Kuntz. Speaker of the evening was Bob Ames, well-known radio commentator, expert on mines and miners. "We have," he said, "in Arizona practically every mineral and every jewel with the exception of pearl—and I would not be surprised to find pearl in fossils." Even diamonds have been found in the desert of Yuma county, he said. There are miles and miles of clay in Arizona and Nevada apparently identical with African clay containing diamonds.

Members of the Mineral and Gem society of Castro Valley, California, know a good deal more about crystals since their October meeting, held in the faculty dining room of Hayward Union high school. David Grigsby, local mineral dealer, gave a lecture on the elementary principles of crystallography, discussing symmetry, crystal axes and the six basic crystal systems. Dean Phillips displayed some of his exceptional crystal specimens. Speaker at the society's November meeting was Ward Lewis, vice president, who talked on cutting spheres.

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Pliny, The Elder, born in 23 A.D., wrote 37 volumes of Natural History, the last of which deals with precious stones. For more than 1600 years after his death, Pliny's book was the authority on precious stones.

"Only within the past 200 years," writes Sydney H. Ball, "have mineralogists progressed much beyond his concepts."

Originally translated by Philemon Holland, Pliny's 37th volume has been edited and interpreted by Dr. Ball and published by the Gemological Institute of America, an endowed non-profit institution, under the title *A Roman Book on Precious Stones*.

In the first section Dr. Ball comments on Pliny and his times, on Roman jewelry, Roman jewelers and lapidaries, tools used by Roman engravers, sources of gemstones, ancient values of precious stones, treated and false stones, and a host of subjects.

"The artisans of Pliny's time imitated many stones in glass and some of these false gems which have come down to us would test the skill of an expert today. Certain Italian jewelers still, after recutting, sell as real gems the pastes dug up in Rome."

This section closes with 20 pages of tables identifying and correlating Pliny's precious stones with those of our day.

The second part consists of the "37th Book of the Historie of the World," printed on India paper its modernized text preceded by a reproduction of the original title page from Philemon Holland's 1601 translation.

Scholarly, yet easy reading—Sydney H. Ball added to a clear and simple style, a natural wit and a delightful mind. His death before the publication of this book is a loss. Much credit is due to Kay Swindler who carried on the task of editing and preparing the book for publication.

Published, 1950, by the Gemological Institute of America, 338 pp. \$6.75.

The art of jewelry making was explained by Emil F. Kronquist, instructor in the Milwaukee Vocational and Adult schools, at October 14 meeting of the Chicago Rocks and Minerals society. Kronquist has a national reputation in his field, is known for the techniques and equipment he has developed, is author of the book *Metalcraft and Jewelry*. Regular meetings of the Chicago society are held the second Saturday of each month, 8:00 p.m., in the Green Briar Park field house, 2650 West Peterson avenue, Chicago.

"Lapidary Technique" was topic of a talk by S. N. Parmelee at November meeting of the San Jose, California, Lapidary society.

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SACRAMENTO MINERAL SHOW SETS MANY RECORDS

All previous shows of the society were surpassed in number of entries, types and quality of material, originality and attractiveness of displays and high quality of workmanship when the Sacramento Mineral society put on its annual fall mineral and gem show October 14 and 15 in the California state capital.

The junior section kept pace with the improvement shown by adult members, proving that sponsorship of this younger group has been worthwhile. George G. Chaussee was chairman of the show committee, Elmer B. Lester is society president and worked on the committee with Derman d'Arcy, Miss Mona Carnahan and John Baierlein.

October was a busy month for the Long Beach Mineralogical society. Following regular meeting October 11 members made a Sunday visit to the home and shop of an outstanding rock grinder, Roy M. Silkwood, in Orange, California. October 7 and 8 was reserved for the Hoover Dam field trip attended by rockhounds from all over the state, and on October 28-29 Long Beach members attended the third annual show of the Hollywood Lapidary society.

First gem and mineral show of the Brawley, California, Gem and Mineral society is scheduled for December 2 and 3 in the science building of Brawley Union high school. Roy Rand is society president, Crystal Johnson, 268 B street, is secretary.

Something new for the Earth Science Club of Northern Illinois was the October meeting at which methods and techniques of the lapidary arts and silver smithing were actually demonstrated. W. W. Briggs brought a complete silver smithing outfit and Steve Norvell, club treasurer, demonstrated steps in the production of a finished semi-precious stone. Norvell has his own portable lapidary outfit. Members brought specimens of finished jewelry and gem stones for display at the meeting.

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NEW SOCIETY STAGES SUCCESSFUL SHOW

One of Southern California's newer societies, the Whittier Gem and Mineral society, proved that its members are not only good rockhounds but also good workers and organizers by putting on a successful rock and gem show October 21 and 22 at the York Field Riding club on Santa Fe Springs road, South Whittier.

Thirty members and friends went on a field trip October 1 to the Vasquez Rocks where geodes and other specimens were found. The Vasquez Rocks are a short distance off Highway 6 only 8.5 miles west of Vincent, California.

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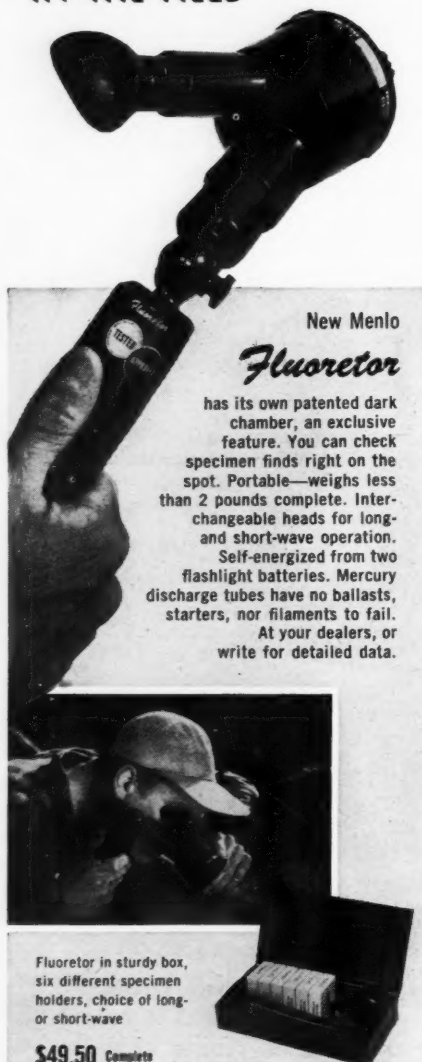
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AMATEUR GEM CUTTER

By LELANDE QUICK, Editor of The Lapidary Journal

We recently judged the lapidary section of a gem and mineral show. It is always a difficult task and it generally boomerangs, for the judges' ideas and those of the people who do not get the coveted ribbons are usually in wide disagreement. Long opposed to award ribbons at shows we continue to see no value in them and they definitely rub open sores that sometimes never heal.

About ten years ago there was a predominance of "flats" in the shows. Most of the rockhounds in those days had a mud saw and a homemade lap. They sliced rocks and they polished the slabs. No way has yet been devised to have as much fun out of rocks. That is the way to look into the heart of the rock. But few slabs are seen any more. Too few lapidaries even own a lap wheel. Most of them have become cabochon artists and faceters and polishing the flat surface is a thing they wouldn't dare tackle. It is much more difficult to polish the flat sides of a pair of book ends than to make a tray of fine cabochons. And it is a lot more work.

The true rock lover who studies and appreciates his gem materials gets much enjoyment out of his beautiful polished slabs, his spheres and his bookends and other novelties. But that phase of the hobby is definitely for the man who has plenty of room for a shop, who has no allergy to dirt and mess and who has access to plenty of rough material for a wide selection. If you have this set-up, why not try a pair of bookends? It is a challenge to the amateur lapidary. We have made but one pair and we certainly learned a lot. We had another lapidary process a couple of chunks left over from Donal Hord's famed "Thunder" into jade bookends for us. After 30 hours of polishing with the latest jade powders they still look as if they needed 130 hours more. Bookends—jade—flat surface polish: the supreme challenge for an amateur lapidary.

These remarks were prompted by the fact that the show we judged had no classification in the lapidary judging for flats or novelties as regards lapidary work. They came under wood or general novelties and were judged on that basis alone. Every show should have a classification for general lapidary work, one for cabochons, one for faceting and one for flats. In our own judging we have always given regard to a case that contained several good flats, good cabochons in all classes of hardness and color, a few faceted stones that were not purchased and included in the display (they too often are) and some evidence that the exhibitor has tried his hand at some problem even if it is only a paperweight. Such a case, containing rhodonite, jade, variscite, malachite, tiger eye, etc., in addition to agates deserves a ribbon more than a case with nothing but fine agate cabochons. Perhaps agate cabs should have a separate classification just as onals usually do. They both are the easiest of lapidary problems in our estimation.

We have just completed an arduous task of compiling a list of 220 mineral and gem societies in the United States. We thought there were more and there certainly are more than we have on our list but not very many or we would have heard of them through the years. We doubt if all these

societies would average a membership of 50 each. This would make a total society membership of 11,000. Most people in the lapidary business estimate that between three and five million hobbyists are cutting rocks but even if we drop to a figure like 1,100,000, which almost no one would dispute, we find that the number of gemcutters who belong to any society anywhere is just one percent. We've stated that many times but many people believed we were wrong. It will not seem right to the club members, but the evidence is preponderantly strong that 99 percent of the people playing with rocks are having plenty of wholesome fun at it without the help of going to meetings.

Of the societies on our list 106 are on the Pacific coast, with 68 in California, 21 in Washington and 17 in Oregon. This indicates that the influence of the societies reaches far beyond their meeting halls and that they could, if they would, have huge memberships if they would allow anyone to come in who was interested in rocks instead of clinging to a by-law limiting membership, and most societies have such a by-law.

Because of our invitation to non-society members to join the Boulder caravan the committee reports that they had written reservations from 60 *Desert Magazine* readers in that class for a total of 192 people. The official figures for the trip indicate 320 cars in the first day's caravan containing 870 people. When you analyze these figures you see that just about 25 percent of those in attendance were *Desert Magazine* readers who belonged to no society but were hungry for a trip. Most reported that they enjoyed that most wonderful field trip in history but some were disgruntled. Turn 870 people loose in a virgin agate field and you can expect that in two hours people will come to you and say "there's not much stuff here and what there is is no good." As usual on all field trips some people got superb material and some just sat on the shady side of the car with a sandwich in one hand and an open bag in the other waiting for the best rocks to jump in.

It was a wonderful sight to see that caravan of 320 cars bumper to bumper, snaking up the mountain on the Arizona side. As we slowed, a man driving the other lane (Illinois license) said to us "what goes on, mister?" "Oh," we said, facetiously, "they just dropped the bomb on Los Angeles and everybody's leaving." His hair stood on end. We repeated this tale at the campfire and heard the loudest mass laughter in the desert's history. That was good. When something like that seems funny to the American people, gathered from 14 states to hunt rocks, it seems good to us. And if, in some parts of the world, men were allowed the seemingly nonsensical freedom of gathering at one spot, after traveling a thousand miles in some cases, just to camp and lick rocks we could laugh even harder. There were more fine automobiles in that one caravan than can be found in some of the largest cities of the world. And while we intended to be facetious with the Illinois man we suddenly realized that no incident that ever happened brought home to us more forcibly the meaning of the phrase—"the peace of the desert."

BOOKS OF THE SOUTHWEST . . .

WRITER COMPILES RECORD OF NEVADA RANGE BRANDS

A complete directory of all the cattle and horse brands recorded in the history of Nevada (excepting destroyed records), is now available between the covers of one volume. Most of the brands and earmarks that played a part in making Nevada's cattle industry will be found in *On the Hoof in Nevada*.

"Rounding up 10,000 head of cattle under one brand is no task for a tenderfoot. Rounding up 10,000 brands, many of whose cattle have been T-bones and roasts for a century, was also a rough job—even for a native Nevadan."

Some of the detective work involved in this "rough job" has gone into making the text of *On the Hoof in Nevada* thoroughly entertaining reading. Velma Stevens Truett not only follows the life-story of a branding iron, but tells the sometimes practical more often romantic reason behind the use of a special design. The sad history of the running iron, "the most famous iron in branding lore," which fell into disrepute because of the artistic work done with it by rustlers is illustrated with the tale of a wayward son who rustled his father's cattle, heated a running iron and added one more letter to his old man's brand. The father's brand IC, now read ICU. The son felt pretty clever about this. "But," writes Velma Stevens Truett, "pa hadn't been born day before yesterday, nor lived under a tub. Retrieving the stock he did a little fancy sketching himself, and next time the rustling son saw the cattle he had pilfered, they were walking around with the curt reminder: ICU2."

Published, 1950, by Gehrett-Truett-Hall, Los Angeles. 613 pp. Photographs and sketches. Handsomely made-up. \$10.00.

VIVID STORIES OF TWO TOUGH TOWNS

"Tombstone and Bisbee were tough towns in their beginning. No communities springing into sudden being out on civilization's rim 300 Apache-strewn miles from a railroad could be otherwise than tough. It took hard men to hold down that kind of a formation, and naturally the first rules of action were those of the six-shooter instead of the kind Blackstone has told us about."

Thus writes Author Joe Chisholm in his *Brewery Gulch*, a chronicle of Arizona's robust early days when the copper discoveries and the silver strikes

made a gamble with life worthwhile to many adventuresome men and women; when hangings and murders were everyday occurrences, and life was exciting and dangerous, lived to the hilt; when a hole in the ground meant sudden wealth, or a grave for the victim of an Apache's knife or lyncher's noose.

The book includes tales of the Apache Kid and John Slaughter, the sheriff who stalked and ultimately killed him; the Earps, Doc Halliday, the Cantons, McLowrys, Johnny Ringo, Curly Bill. The good and the evil of early Tombstone and Bisbee.

Joe Chisholm went by stage through Apache country to arrive in Tombstone when only six years old. The son of a lawman who carried no gun, he was introduced to violence at a lynching of five men. A man of diverse talents, he became hard-rock miner, editor, author and cowboy. He knew Arizona well in the early days of the territory, and brings to life many of the lawmen and rangers, gunmen and desperados.

Published by The Naylor Company, San Antonio, Texas, 1949. 176 pp., plus index. \$2.75.

DR. NININGER PUBLISHES FAMOUS METEORITE CATALOG

In the winter of 1923-24, H. H. and Addie D. Nininger set out to search for fragments of the great meteoric fall of November 9, 1923. They discovered two meteorites "neither of which bore any relation to the fall sought" except in location. They were found about 12 miles apart.

Out of this experience grew a theory: "If one brief search . . . could yield two meteorites in a small area, designated as the probable location of a third fall, then certainly meteorites must be more abundant on the earth than is generally believed."

On the basis of this theory a new field of research was opened, the objective of which was "to gain an intelligent estimate of the nature and magnitude of the increment from space."

As time went by the soundness of the Nininger theory was revealed. Not only were the resulting new discoveries greater in number "than had been recorded throughout the world in any three-year period" prior to the beginning of the Nininger search, but the geological importance of meteorites became manifest as the "content of stony as compared with metallic meteorites" began to tell a story of its own.

New procedures had to be established to implement the research project which the Niningers had set for themselves. Scientists discouraged them. No sponsors could be found to finance the project. The Niningers were forced to finance themselves by the sale of specimens and by charging for lectures. In spite of all these obstacles their work has continued for 26 years, and today Dr. Nininger has one of the finest collections of meteorites in the world, most of them being on display at the American Meteorite Museum near Winslow, Arizona.

These meteorites are cataloged and their source revealed in *The Nininger Collection of Meteorites* recently published by the owner. 144 pp., 38 plates, 6 maps. \$3.00.

This book may be ordered from
Desert Crafts Shop
Palm Desert, California.

FIELD MANUAL PUBLISHED FOR ARCHEOLOGISTS

Prepared by advanced students in anthropology at the University of California and edited by Dr. Robert F. Heizer of the faculty, a handbook for field workers in archeology has been published this year.

A Manual of Archaeological Field Methods covers the entire range of field work from the preliminary survey of the site to be excavated to the methods of classification and the recording of data, including sample forms for keeping the records.

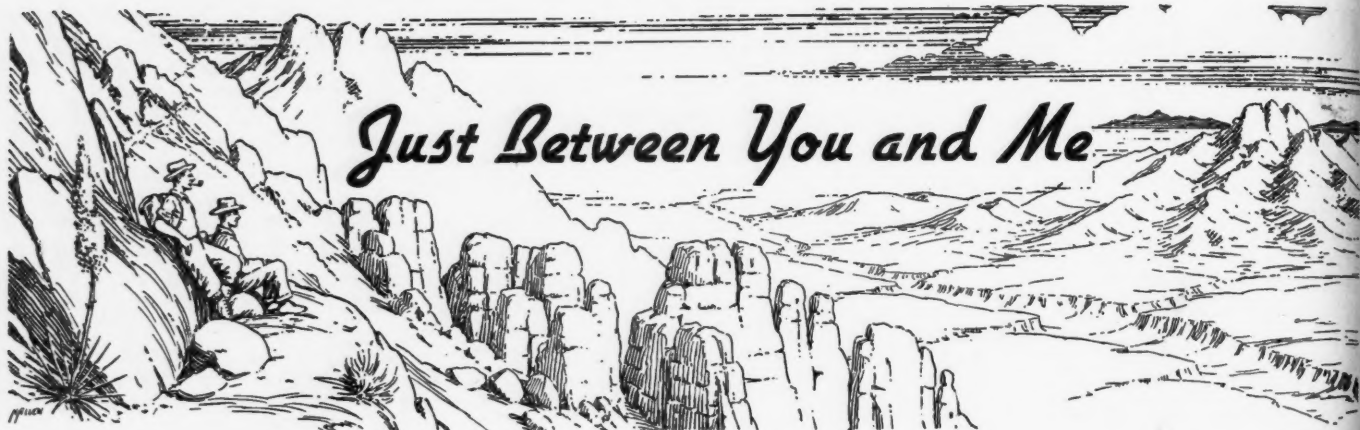
While the manual was prepared by graduate and advanced students as a guide for their own work, it is especially valuable to the amateur archeologist who has not had the benefit of university training in field work. Many collectors of Indian artifacts have not realized the importance of keeping careful records of their finds, or have not known just what records should be preserved. This handbook is the answer to their problem.

The publishers of the manual also have issued a small field notebook for use in making records at the site.

Published by National Press, Millbrae, California. Spiral ring binding, paper cover. Biblio. Reference list. Pen sketches. 85 pp. Manual \$2.00. Notebook 30c.

This book may be ordered from
Desert Crafts Shop
Palm Desert, California

Correcting a book review listing which appeared in the November issue of *Desert Magazine*, the retail price of Charles Avery Amsden's *Prehistoric Southwesterners* is \$3.50, not 50 cents, as quoted. The book is available at Southwest Museum in Los Angeles.



By RANDALL HENDERSON

SINCE THE November issue of *Desert Magazine* went to press I camped for several days among the lava beds of the Pinacate region near the head of the Gulf of California in Sonora. The story of the trip will appear in a later issue of *Desert*.

That is a wild, waterless land, inaccessible except on horses or in desert-equipped vehicles. From the slopes of the Pinacate range we could look across the gulf to the high peaks of the San Pedro Martyr Mountains in Baja California, about which neither Mexicans nor *Norte Americanos* know very much despite the fact that they are but a few hours by motor from the Los Angeles metropolitan area.

For those who have the time and desire to explore, it is not necessary to go to Africa or South America. Right here in the Southwest are great spans of desert wilderness where the wildlife has neither seen a human being nor heard the discharge of a gun.

There are bighorn mountain sheep in the Pinacates, but we carried no firearms. The longer one lives on the desert the more respect one gains for the wild animals and birds that have survived in this land of little rain and few waterholes. With the passing years, the impulse to kill gives way to a desire to protect.

Paul Witmer, manager of the United States land office in Los Angeles, tells me his staff has now issued more than 12,000 5-acre leases to jackrabbit homesteaders in Southern California. Additional applicants are coming in at the rate of 200 a month—and a dozen or more deeds are being issued monthly to homesteaders who have built cabins on their sites and thereby qualified for ownership of the land.

These rocky little homesteads are scattered all over Southern California—at Twentynine Palms, Coachella Valley, Morongo Valley, Victorville, and near Yermo on the Mojave desert a group of rockhounds from San Fernando Valley have taken up claims and are organizing "Operation Rockhound" for the cooperative improvement of their homesites.

The total cost of one of these 5-acre sites ranges from \$75 to \$150, according to the appraised value determined by federal field men. Then there is the necessity of spending at least \$300 for a cabin before Uncle Sam will issue a patent.

Jackrabbit homesteads are only for folks who have a bit of pioneering blood in their veins. The land generally is rough, no water is immediately available, more or less road building has to be done. But fortunately there are

many Americans who find infinite pleasure in doing the hard work necessary to provide living accommodations on one of these sites—and cabins are springing up all over the desert country.

A majority of Americans in this generation are on someone's payroll. But deep in the heart of nearly every human is the desire to be working for himself, or herself. The ownership and improvement of one of these 5-acre claims provides a partial answer to that urge. One cannot make a living on a jackrabbit homestead—but for city dwellers who have their weekends free these little homesites three or four hours away on the desert provide the opportunity to build something with the greatest tools God has given to man—his two hands. And when he is building for himself there is a rich reward in personal satisfaction.

As a service to those *Desert* readers who are interested in rackrabbit homesteading, we have a little circular giving the essential information, which is free for the asking. I cannot locate a claim for you—that can be done only in the land office—but I am glad to pass along all the information I have, for I think the ownership of a bit of desert land is good tonic for many of the human ailments. I have one of those little homesteads myself.

This month the *Desert Magazine* tells the story of Lloyd Mason Smith, director of the Desert Museum at Palm Springs. Lloyd is no ordinary director. He has taken to himself the task of teaching Palm Springs and its thousands of visitors something about the Great American Desert.

And that is quite an assignment for although Palm Springs publicizes itself far and wide as a desert resort community—an appalling number of its citizens know less about the desert than they do about the climate in Timbuctoo.

The same is true of most desert communities. It can be said to the credit of Palm Springs that it has done what few other towns in the Southwest have done—it has employed the services of the best man it could find to give instruction and leadership to those who really are eager to discover the charm of the land which lies beyond the paved roads and swank hotels.

From my scrapbook, this quotation from Harold Bell Wright:

Have you noticed how often among human plants those that have been forced to fight hardest for a bare existence flower in rarest beauty? It is almost as if loveliness were the child of bitter hardship and travail.